Transforming Education

Addressing Institutional Educational Voids through XR Technologies

CHALLENGES IN EDUCATION SYSTEMS

1. Quality of Education
2. Accessibility to Education
3. Affordability of Education
4. Vocational Education and Training (VET)
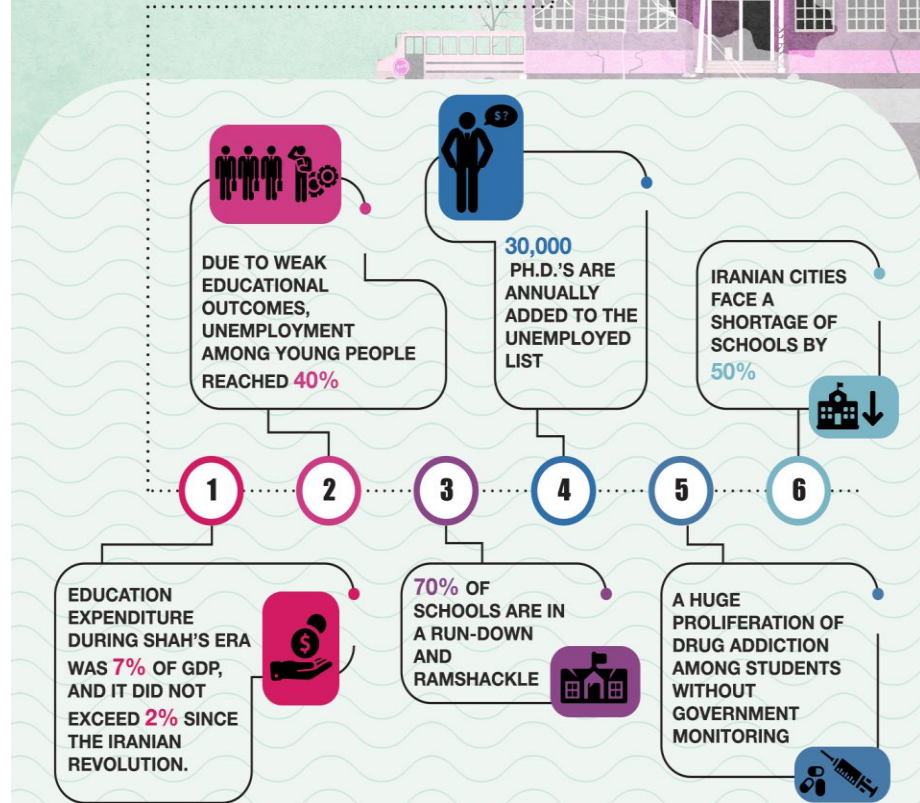5. Gap Between Graduation and Employment

Education in Iran

Education in Iran: Key Challenges:

- **40% youth unemployment** due to weak educational outcomes.
- **30,000 PhDs** added to the unemployment list annually.
- **50% shortage** of schools in urban areas.
- **70% of schools** are rundown and poorly maintained.
- **Education expenditure** dropped from 7% (Shah's era) to less than 2% post-revolution.
- **Drug addiction** among students due to lack of government monitoring.

EDUCATION IN IRAN
MULTIFACETED SUFFERING

DUE TO WEAK EDUCATIONAL OUTCOMES, UNEMPLOYMENT AMONG YOUNG PEOPLE REACHED **40%**

30,000 PH.D.'S ARE ANNUALLY ADDED TO THE UNEMPLOYED LIST

IRANIAN CITIES FACE A SHORTAGE OF SCHOOLS BY **50%**

1 2 3 4 5 6

EDUCATION EXPENDITURE DURING SHAH'S ERA WAS **7%** OF GDP, AND IT DID NOT EXCEED **2%** SINCE THE IRANIAN REVOLUTION.

70% OF SCHOOLS ARE IN A RUN-DOWN AND RAMSHACKLE

A HUGE PROLIFERATION OF DRUG ADDICTION AMONG STUDENTS WITHOUT GOVERNMENT MONITORING

SOURCE: "INTERNATIONAL BANK, TORGHABEH ONLINE" TORGHABEHONLINE.COM

EDUCATION *in* PAKISTAN

Pakistan has the world's second highest number of children out of school, reaching **8.3 million** in 2012 - equivalent to 1 in 12 of the world's out-of-school children

Pakistan's spending on education is very low

Spending on education has been reduced from 2.6% of GNP in 1999 to 2.4% in 2012

In 2010, the country allocated only **10%** of government spending on education.

Pakistan spends around **7 times** more on the military than on primary education.

Some of the worst education indicators

1/2 of out-of-school children are girls, amounting to over **4.5 million** girls

49.5 million adults are illiterate, two-thirds are women. This is the third largest globally.

Projections indicate that the number of illiterate adults will increase to **51 million** by 2015.

2012
1999

In just thirteen years, the primary net enrolment ratio rose from **58%** to **63%**. The ratio for girls is still 19% behind the ratio for boys, leaving only **8** girls to every **10** boys in primary school
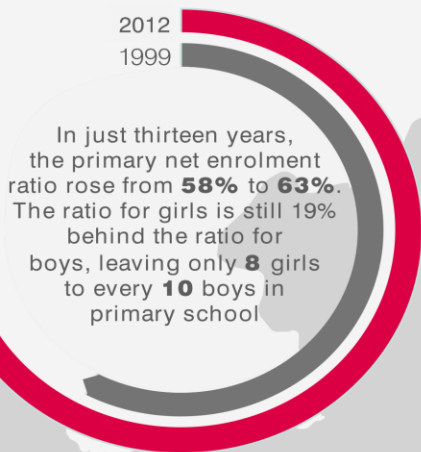
Amongst the widest education inequalities

1/4 of 7-16-year-olds had never been to school, with wide variations by region, wealth status and gender.

Only **17%** had never been to school in Punjab, **25%** in Khyber Pakhtunkhwa and **37%** in Balochistan.

Poorest girls are most disadvantaged in all three provinces, with over half never having been to school.
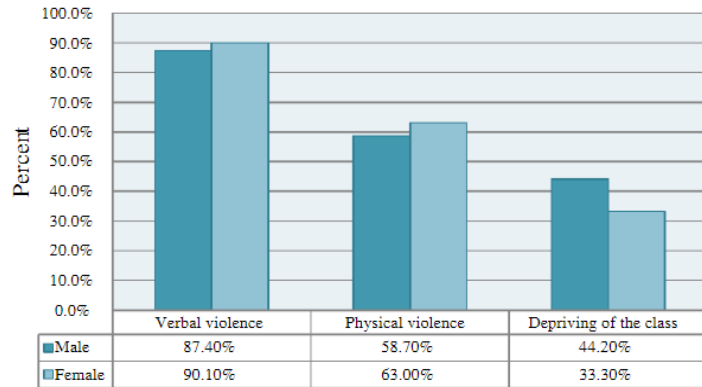
CNN

QUALITY OF EDUCATION

The education systems in these regions are hindered by **political instability**, outdated curricula, and a focus on rote learning, **limiting critical thinking** and practical skills development. Urban areas tend to offer better education quality, but rural and conflict-affected regions suffer from **under-resourced schools**, outdated textbooks, and **insufficient teacher** training.

Figure 3 Types of violence in educational institutions

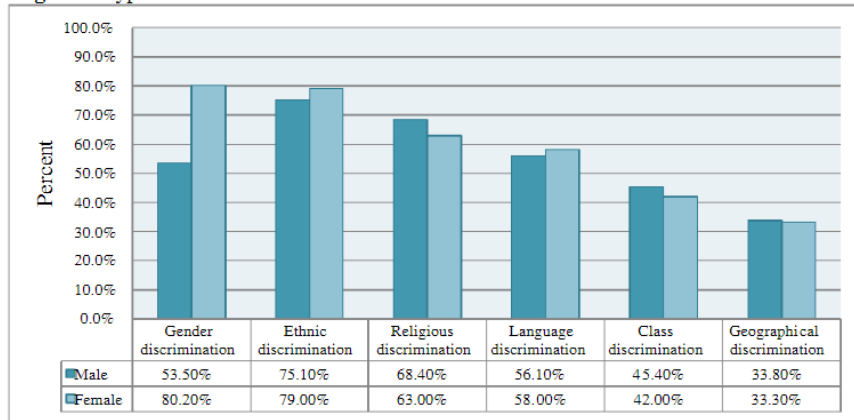|	Verbal violence	Physical violence	Depriving of the class
Male	87.40%	58.70%	44.20%
Female	90.10%	63.00%	33.30%

Types of Violence in Educational Institutions:

- **Verbal Violence**: 90% of females, 87% of males
- **Physical Violence**: 63% of females, 59% of males
- **Deprivation from Class**: 33% of females, 44% of males

Figure 4 Types of discrimination in educational institutions

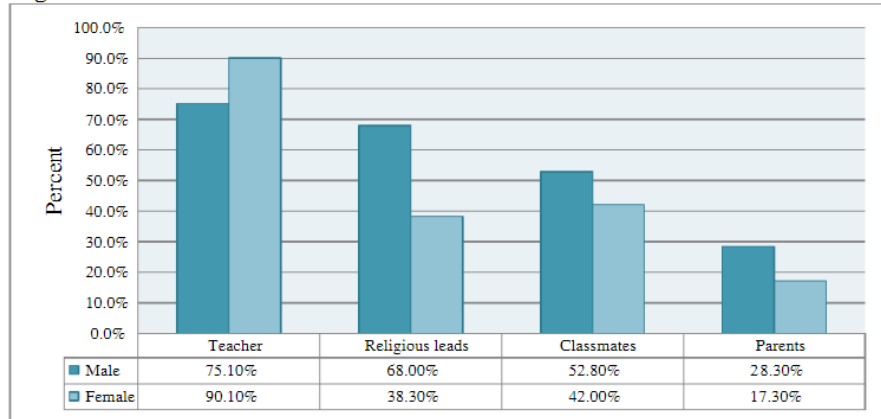|	Gender discrimination	Ethnic discrimination	Religious discrimination	Language discrimination	Class discrimination	Geographical discrimination
Male	53.50%	75.10%	68.40%	56.10%	45.40%	33.80%
Female	80.20%	79.00%	63.00%	58.00%	42.00%	33.30%

Types of Discrimination in Educational Institutions:

- **Gender Discrimination**: 80% of females, 54% of males
- **Ethnic Discrimination**: 79% of females, 75% of males
- **Religious Discrimination**: 63% of females, 68% of males
- **Language Discrimination**: 58% of females, 56% of males
- **Class Discrimination**: 42% of females, 45% of males
- **Geographical Discrimination**: 33% for both genders

Figure 5 Sources of discrimination in educational institutions

	Teacher	Religious leads	Classmates	Parents
Male	75.10%	68.00%	52.80%	28.30%
Female	90.10%	38.30%	42.00%	17.30%

Educational opportunities and challenges in Afghanistan

Sources of Discrimination in Educational Institutions:

- **Teachers**: 90% of females, 75% of males
- **Religious Leaders**: 38% of females, 68% of males
- **Classmates**: 42% of females, 53% of males
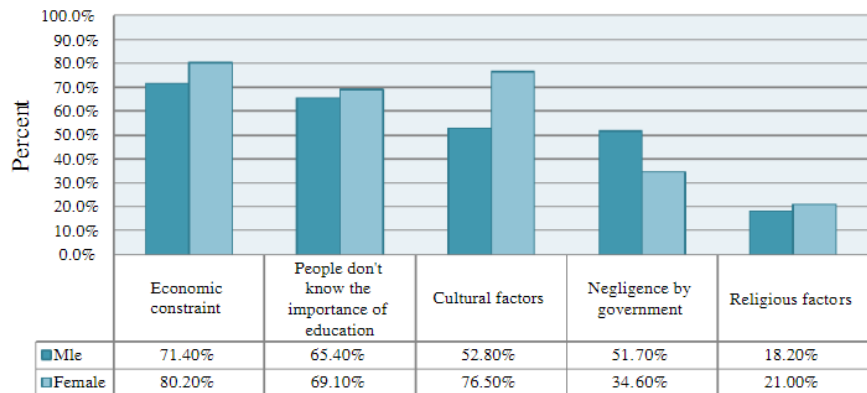- **Parents**: 17% of females, 28% of males

ACCESSIBILITY TO EDUCATION

Access to education is highly uneven, with rural areas and conflict zones facing significant challenges. In some regions, children, particularly girls, face barriers due to **safety concerns**, cultural norms, and **inadequate infrastructure**. In urban areas, accessibility is better, though **disparities** remain between **wealthier** and **poorer** communities.

Figure 1 Factors influencing the inaccessibility of education

	Economic constraint	People don't know the importance of education	Cultural factors	Negligence by government	Religious factors
Mle	71.40%	65.40%	52.80%	51.70%	18.20%
Female	80.20%	69.10%	76.50%	34.60%	21.00%

Educational opportunities and challenges in Afghanistan

Key Factors Influencing Education Inaccessibility:
- **Economic Constraints**: 80% of females, 71% of males
- **Lack of Education Awareness**: 69% of females, 65% of males
- **Cultural Factors**: 77% of females, 53% of males
- **Government Negligence**: 52% of males, 35% of females
- **Religious Factors**: 21% of females, 18% of males

Affordability of Education

While public education is often free or low-cost, **hidden expenses** such as uniforms, textbooks, and travel create financial barriers for low-income families. Private schooling offers **better quality** but remains out of reach for many due to **high costs**. This financial burden restricts full participation in the education system, especially among **marginalized groups**.

Vocational Education and Training (VET)

The VET sector in the region is generally underdeveloped, with outdated programs that fail to meet the needs of modern industries. There is a significant gap between the skills taught in vocational programs and the demands of the job market, resulting in graduates who are ill-prepared for employment.
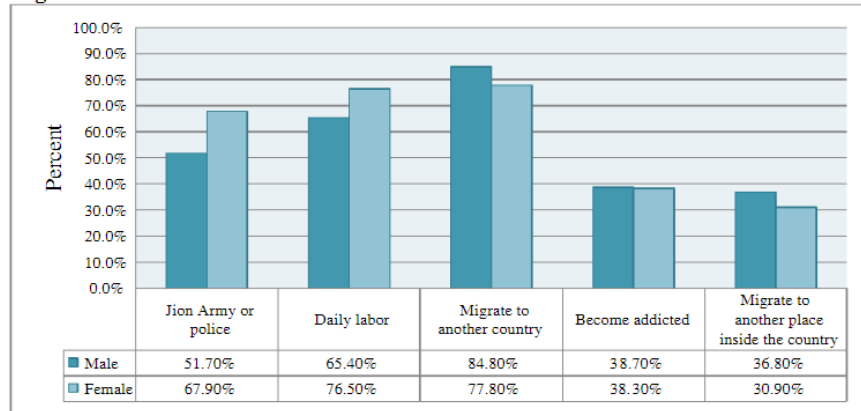
Gap Between Graduation and Employment

A major issue in the region is the disconnect between **academic education** and **job market requirements**. Graduates often lack practical skills, work experience, and **job readiness**, leading to high unemployment rates among young people. The focus on **theoretical knowledge**, rather than practical or vocational training, exacerbates this gap.

Figure 2 Alternatives for those who do not access education

	Jion Army or police	Daily labor	Migrate to another country	Become addicted	Migrate to another place inside the country
Male	51.70%	65.40%	84.80%	38.70%	36.80%
Female	67.90%	76.50%	77.80%	38.30%	30.90%

Educational opportunities and challenges in Afghanistan

Alternatives for Those Without Access to Education

- **Join Army/Police**: 68% of females, 52% of males
- **Daily Labor**: 77% of females, 65% of males
- **Migrate Abroad**: 78% of females, 85% of males
- **Risk of Addiction**: 38% for both genders
- **Internal Migration**: 31% of females, 37% of males

Proposed Solutions Using EON Reality

Key areas addressed:
- Curriculum enhancement
- Personalized learning
- Teacher training
- Community engagement
- Strategic partnerships

Virtual and Augmented Reality in Classrooms

Utilize VR to simulate environments like historical sites, scientific labs, and global landmarks for immersive learning.

AR overlays can enhance textbooks, making content more interactive and engaging.

Focus on improving access to advanced educational content and practical learning experiences, particularly in resource-limited and conflict-affected areas.

AI-Driven Personalized Learning

Implement AI to assess student needs, tailoring VR/AR content to individual learning progress.

Adaptive learning paths help students focus on areas where they struggle, ensuring personalized education at scale.

AI-powered platforms can deliver relevant content in local languages, increasing accessibility across diverse communities.

Teacher Training and Support

Comprehensive training programs to help teachers integrate VR/AR tools into the classroom.

Focus on creating interactive learning experiences that enhance student engagement and understanding.

Provide educators with the skills needed to design and use XR technologies in a way that makes lessons more dynamic and effective.

Community Engagement and Support

Conduct workshops and demonstrations to showcase the benefits of XR in education.

Engage communities to build support for the adoption of new technologies in schools.

Focus on overcoming cultural barriers and demonstrating the real-world impact of VR/AR on learning outcomes.

Establish Strategic Partnerships

Government and Policy Support:
Work with local governments to integrate XR technologies into national education policies.

Tech Companies and NGOs:
Partner with EON Reality and other tech providers for hardware, software, and technical support.

International Organizations:
Seek funding and expertise from global organizations like UNESCO and UNICEF to implement and scale XR technologies.

CONCLUSION

EON Reality provides a transformative opportunity to address educational challenges in the region.

By leveraging XR technologies, the region can improve the quality, accessibility, and relevance of education, preparing students with the skills needed for future success.