



## **The Role of Dual Degrees, MOOCs, and OERs in Inclusive Education**

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DOI: [10.33329/ijless.12.S1.367](https://doi.org/10.33329/ijless.12.S1.367)

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### **ABSTRACT**

Education plays a key role in the development of any nation. Every individual has the right to education. However, there are geographical, economical or cultural barriers which prevent the access to education for all. To address this problem, educational tools like dual degree courses, MOOCs and OERs can be effectively utilized. The aim of inclusive education is providing access to the underprivileged student communities to cater their needs, thereby ensuring equality in education, which is emphasized by United Nations' Sustainable Development Goal 4(SDG 4) and UNESCO. This review focuses upon the role of these educational tools in inclusive education with case studies and recommendations.

Keywords: Dual degree programs, MOOCs, OERs, inclusive education

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### **Introduction**

Education empowers individuals and encourages sustainable development. However, access to quality education is limited, with economically backward and geographically remote communities often being excluded. Under these circumstances inclusive education ensures “equal learning opportunities for all, regardless of socio-economic, physical, or cultural barriers” (UNESCO, 2020).

### **Inclusive Education: Building Equality**

Inclusive education aims to include all learners into the same educational platform, providing customized support to meet diverse needs (Ainscow et al., 2006). The United Nations' Sustainable Development Goal 4 (SDG 4) emphasizes “equitable education as a means to reduce inequality and promote lifelong learning opportunities” (United Nations, 2015). However, traditional education models often fail to accommodate learners from disadvantaged backgrounds due to barriers like high costs, limited infrastructure, and rigid curricula (World Bank, 2021).

In recent times, as part of inclusive education policies, dual degree programs, Massive Open Online Courses (MOOCs), and Open Educational Resources (OERs) redefined the way education to be

delivered, making it more accessible, affordable, and adaptable. This article reviews these innovations, supported by case studies, to highlight their role in inclusive education.

### **1. Dual Degrees: Scope of learning**

Dual degree programs allow students to pursue two courses simultaneously in the same academic period, often in complementary fields such as engineering and management. They intend to train the students for global market. These programs are usually offered through partnerships between diverse departments, universities, sometimes across international boundaries (Petersen & Wing, 2021). The students from the institutions without much infrastructure can be benefitted by partner University with modern infrastructure facilities.

Case Study: Erasmus Mundus Joint Masters Program

The Erasmus Mundus Joint Masters Program is one of the best examples to explain how dual degrees can enhance inclusivity. This program offers scholarships to students from developing countries, enabling them to study at various European universities. This initiative has increased access to global education for underprivileged communities (European Commission, 2020).

Benefits of Dual Degrees:

Through Dual Degrees students from underdeveloped regions get access to top-tier institutions and global networks (Altbach et al., 2009).

- i. **Cost Savings:** Combining two degrees into one program reduces costs and time, providing education more affordable for students with limited resources (Marginson, 2016).
- ii. **Skill Diversity:** Dual degrees equip students with complementary skills that improve their employability (OECD, 2019).
- iii. **Flexible Learning Pathways:** These programs offer mutually beneficial combinations, allowing students to align their studies with career goals (Teichler, 2004).

However, dual degrees are confined to few top institutions and sometimes offered as self finance courses. Increasing government funding and international university collaborations can help address these challenges (Knight, 2014).

### **2. MOOCs: Breaking Physical Barriers**

Massive Open Online Courses (MOOCs) are offered as online courses that provide access to quality education. Platforms like Coursera, edX, and Udemy provide courses in online mode from the best institutions, which are accessible to people worldwide (Shah, 2020).

Case Study: Coursera for Refugees

Coursera in a partnership with the United Nations High Commissioner for Refugees (UNHCR) provides free access to courses for refugees, which help them acquire valuable skills for employment and access to host countries (Coursera, 2021).

Benefits of MOOCs :

- i. **Accessibility:** MOOCs allow learners from remote areas to access quality education, removing geographical barriers (Hollands & Tirthali, 2014).
- ii. **Affordability:** Most of the MOOCs are offered free of cost, with optional certification fees. This provides access to high-quality learning materials (Reich & Ruipérez-Valiente, 2019).
- iii. **Flexibility:** MOOCs allow students learn at their own pace, accommodating part-time employees, and individuals with disabilities (Koller et al., 2013).

- iv. Language Support: Khan Academy and edX offer multilingual courses, catering to the needs of non-native speakers and promoting cultural inclusivity (UNESCO, 2020).

Though MOOCs have provided access to education, high dropout rates remain a problem, with completion rates as low as 10% (Jordan, 2015). Personalized mentoring and interactive content can improve engagement and retention (Seaton et al., 2014).

### 3. OERs: Free Study Resources for All

Open Educational Resources (OERs) are freely available learning materials, in the form of textbooks, videos, and software. These resources are particularly useful in low-income regions where traditional educational materials are unaffordable (Weller, et al. 2015; Hilton, 2016).

Case Study: TESSA (Teacher Education in Sub-Saharan Africa)

The TESSA initiative delivers free resources to support teacher training in Sub-Saharan Africa, to overcome the shortage of qualified educators in the region. By translating content to regional languages, TESSA has improved learning outcomes for millions of students (Wolfenden et al., 2017).

Benefits of OERs :

- i. Cost Reduction: OERs avoid the need for costly textbooks, reducing financial burden for low-income students (Wiley et al., 2014).
- ii. Cultural Relevance: Educators can adapt OERs to suit local needs, ensuring that materials are useful and relatable (Blyth, 2011).
- iii. Accessibility for Disabilities: OERs can be converted into various formats, such as audio or Braille, to benefit learners with disabilities (Seale, 2014).
- iv. Global Collaboration: OERs allow knowledge sharing among educators worldwide, encouraging innovation and improving quality of education(Hodgkinson-Williams & Gray, 2009).

Despite their potential, OERs need trained professional educators. Governments and institutions need to invest in digital infrastructure and training programs (Stacey, 2013).

### Comparative Analysis

Aspect	Dual Degrees	MOOCs	OERs
Cost	Moderate to High	Low to Free	Free
Accessibility	Limited to partner institutions	Open to all with internet access	Open to all
Customization	Moderate	Limited	High
Learning Scope	Comprehensive	Topic-specific	Flexible
Challenges	Cost, infrastructure barriers	High dropout rates	Limited awareness and access

### Future Recommendations

To fully realize the potential of dual degrees, MOOCs, and OERs, the following actions are suggested:

- a. Digital Access: Governments are suggested to invest in internet access and affordable devices to reach underserved areas (World Bank, 2021).

- b. Collaborations: Supporting partnerships between universities in developed and developing regions to expand access to dual degree programs (Knight, 2014).
- c. Training to educators: Teachers need to be trained to effectively use MOOCs and OERs, to integrate into traditional learning models (Hollands & Tirthali, 2014).
- d. Financial Support: Providing scholarships can help underprivileged students to access these programs (Altbach et al., 2009).

### **Conclusion**

Dual degrees, MOOCs, and OERs are the tools which have the potential to revolutionizing education by making it more inclusive and accessible to underprivileged students. Students can effectively utilize their time for the maximum academic benefit and employability. These educational tools minimize the problems in learning due to cost, geographical location, and limitation of resources. However, to achieve their full potential, coordinated efforts from governments and educational institutions are required, which ensures equal learning opportunities for all the students.

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