



Reaching The Unreached: The Role and Contribution of Open and Distance Education for Communities in The Island Region

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Abstract

Accessibility and reachability are the strengths of open and distance education (ODE) with its cost-effectiveness and flexibility. The territory of the Republic of Indonesia, which is an archipelagic country, proves that Open and Distance Education (ODE) has proven to be able to reach remote areas in the archipelago of the Republic of Indonesia. Open and Distance Education (ODE) provides higher education opportunities for people who are unable to continue their formal education due to their remoteness. This article discusses efforts to increase the reachability of open and distance education (ODE) in the Kepulauan Riau Province. This article also presents the experience of Universitas Terbuka regional office Batam which is part of the Universitas Terbuka Indonesia in contributing to increasing reachability and providing access to education for people in the area.

Keywords: Open and Distance Education, Communities, Island Region

1. Introduction

Based on National Regulation No. 25/2002 Kepulauan Riau Province was placed as one of the province in Indonesia with 4 regencies and 2 municipalities, they are Karimun, Bintan, Natuna, and Lingga Regencies along with Batam and Tanjungpinang Municipalities. Since 2008, based on Regulation No. 33/2008 Kepulauan Anambas Regency was published since separated from Natuna Regency.

Since its founding, Kepulauan Riau province has consisted of 5 regencies and 2 cities, 52 sub-districts, and 299 sub-districts/villages with a total of 2,408 large and small islands of which 30% are unnamed and inhabited. Kepulauan Riau Province has 7 regencies/municipalities. They are Karimun, Bintan, Natuna, Lingga, Kepulauan Anambas, Batam, and Tanjungpinang.

The total area of the Kepulauan Riau province is 8,269.71 km² (3,192.95 sq mi) (3,192.95 sq miles), making it the 31st largest province in Indonesia, slightly smaller than the province of Banten in Java. 96% of the total area of the province is encompassed by ocean and only 4% of it is encompassed by land. The province shares maritime borders with Vietnam and Cambodia to the north, the province of Bangka Belitung Islands and Jambi in the south, East Malaysia, Brunei, and the province of West Kalimantan in the east and Peninsular Malaysia, Singapore and mainland Riau in the west.

Education in the Kepulauan Riau province, as well as Indonesia as a whole, falls under the responsibility of the Ministry of Education, Culture, Research, and Technology and the



Ministry of Religious Affairs. In Indonesia, all citizens must undertake twelve years of compulsory education which consists of six years at the elementary level and three each at middle and high school levels. Islamic schools are under the responsibility of the Ministry of Religious Affairs. The Constitution also notes that there are two types of education in Indonesia: formal and non-formal. Formal education is further divided into three levels: primary, secondary, and tertiary education. Indonesians are required to attend 12 years of school, which consists of three years of primary school, three years of secondary school, and three years of high school.

Universitas Terbuka (UT) was established with Presidential Decree Number 41 of 1984 on 4 September 1984 as the 45th state university. UT is entirely using a distance education mode of learning. UT has been designed to be a flexible and inexpensive university focusing on serving people who lack the opportunity to attend face-to-face mode of the higher education system due to various constraints, including lack of funding, living in isolated and rural areas, and work as well as other commitments. As a state university and employs an Open and Distance Learning (ODL) system to widen access to higher education to all Indonesian citizens, including those who live in remote islands throughout the country, as well as in various parts of the world. UT follows an open admission policy, which means that anyone who meets the minimum entry requirements can enroll in the university's programs. There are no geographical restrictions, and students from various parts of Indonesia and around the world can apply.

2. Research Method

The quantitative descriptive research method is a research approach that focuses on describing and summarizing data using numerical measures and statistical analysis. The method used in this research is a descriptive method with a quantitative approach, namely research methods that emphasize analysis on actual problems with data in the form of numbers. The type of data used for this research is secondary data is data obtained from a previously available source. The data used is data from the Badan Pusat Statistik Kepulauan Riau up to 2022 and UT Batam Regional Office students' registration data up to 2022/2023 semester.

3. Results and Discussions

Since its founding, Kepulauan Riau province has undergone a significant number of administrative areas. Initially consisted of 4 regencies and 2 cities with a total of 17 sub-districts and now in the year 2022 has become 5 regencies and 2 cities with a total of 78 sub-districts (BPS kepulauan Riau, 2022).



Based on Minister of Home Affairs Regulation of Indonesia Number 100.1.1- 6117, November 9, 2022, the land area of each regency/municipality in Kepulauan Riau Province is:

1. Karimun (930,45 km²)
2. Bintan (1.317,15 km²)
3. Natuna (1.999,16 km²)
4. Lingga (2.210,82 km²)
5. Kepulauan Anambas (627,03 km²)
6. Kota Batam (1.034,73 km²)
7. Kota Tanjungpinang (150,37 km²)

Population of Kepulauan Riau Province in 2022 based on population projection is 2.179.820 population consisting of 1.112.152 males and 1.067.668 females. With a sex ratio is 104,2, this means between 100 females, there are 104 males (BPS Kepulauan Riau, 2022).

Table 1. Population by regency/city and sex in Kepulauan Riau Province (2022)

Regency/City	Sex		Total
	Male	Female	
Kabupaten/Regency			
1. Karimun	136.283	129.894	266.177
2. Bintan	85.423	80.358	165.781
3. Natuna	43.924	41.522	85.446
4. Lingga	53.051	49.802	102.853
5. Kepulauan Anambas	25.999	24.297	50.296
Kota/City			
1. Batam	646.639	622.774	1.269.413
2. Tanjungpinang	120.833	119.021	239.854
Kepulauan Riau	1.112.152	1.067.668	2.179.820

Sources : BPS Kepulauan Riau

The data in Table 1 shows that The largest population is in Batam City for 58,23 percent. Meanwhile, the population density in Kepulauan Riau province reached 264 population per km², whereas the densely populated area in Tanjungpinang City amounted to 1.595 population per km².

Grouping the Indonesian population can be done based on intervals or age ranges. For example, according to the Badan Pusat Statistik Indonesia (BPS), productive age is measured from the age range of 15 to 64 years.



Table 2. Population by age groups and sex in Kepulauan Riau Province (2022)

Age Group	Sex		Total
	Male	Female	
0-4	99.767	94.952	194.719
5-9	99.549	94.766	194.315
10-14	91.920	87.432	179.352
15-19	90.703	85.094	175.797
20-24	99.503	97.296	196.799
25-29	95.689	94.682	190.371
30-34	95.730	93.475	189.205
35-39	91.639	91.865	183.504
40-44	86.092	84.357	170.449
45-49	77.647	73.884	151.531
50-54	61.728	56.938	118.666
55-59	46.653	41.678	88.331
60-64	32.487	29.201	61.688
65-89	20.143	18.738	38.881
70-74	12.123	11.883	24.006
75+	10.779	11.427	22.206
Kepulauan Riau	1.112.152	1.067.668	2.179.820

Sources : BPS Kepulauan Riau

From the data in Table 2. Percentage of Population by Age Groups and Sex in Kepulauan Riau Province shows that 1.526.341 population or 70,04 % in productive age.

Open education is a concept of opening educational access to all, which is based on the acceptance that education and knowledge are public goods and that everyone has the right to access quality education (Belawati, 2014). As previously mentioned, UT was founded to implement the open education concept as stated in the objectives of UT's establishment: (1) to provide an expansive opportunity for Indonesian citizens and foreigners, wherever their place of residence, to attain higher education, (2) to provide higher education services for those who, because of their work or due to other reasons, are not able to further their education in face-to-face higher education institutions, and (3) to develop academic and professional programs to satisfy the national development needs that are unaddressed by other universities.

UT's focus is on educating people who, for various reasons including lack of funding, rural isolation, and full-time employment, do not have the opportunity to attend conventional face-to-face higher education institutions. The UT mission is, (1) To provide access to world-class higher education for all through the implementation of various distance education programs to produce highly competitive graduates. (2) To study and develop a distance education system to support the implementation of distance learning in Indonesia, and (3) To utilize and



disseminate the results of scientific and institutional studies and distance education to meet the challenges of national development.

As a state university that implements a distance education system (PJJ), UT has its regional offices to reach out to its students and provide education services across the country. Currently, there are 39 UT regional offices, which are usually referred to Universitas Terbuka's Regional Office (UPBJJ-UT).

UT Batam is one of the UT regional offices in the Kepulauan Riau province with its working area covering 7 regency/cities namely Batam, Tanjung Pinang, Bintan, Lingga, Karimun, Kepulauan Anambas, and Natuna. The archipelago-based demographic area of the Riau Islands Province and its diverse people and culture. Where each district and city has different features. UT Batam is present in the Kepulauan Riau province and can reach all corners of the UT Batam work area to the outermost islands.

Until semester 2022/2023, UT Batam Regional Offices serving 11.157 students in Kepulauan Riau Provinces. Students at UT Batam Regional Offices come from various backgrounds, some are not yet working and some are already working. Some come from areas with adequate infrastructure and some come from areas with inadequate infrastructure. UT Batam Regional Offices offers all study programs to all people in Kepulauan Riau province.

Table 3. UT Batam regional offices students by faculty semester 2022/2023

Faculty	Total	Percentage
Faculty of Law, Social and Political Sciences (FHISIP)	5.427	48,6%
Faculty of Economics and Business (FEB)	3.705	33,2%
Faculty of Education and Teacher Training (FKIP)	1.272	11,4%
Faculty of Science and Technology (FST)	544	4,9%
Postgraduate	209	1,9%
UT Batam Regional Offices Students	11.157	100,0%

Sources: registrasi.ut.ac.id

The data in Table 3 shows that the Faculty of Law, Social and Political Sciences has the most students at UT Batam Regional Offices 48,6%. There are eight undergraduate study programs offered by the faculty. Law has the most students. As many as 1980 law students at UT Batam Regional Offices. Meanwhile, the faculty also offers two diploma programs, one Master's program, and one Doctoral program.



Table 4. UT Batam regional offices students in Kepulauan Riau Province by regency/city semester 2022/2023

Regency/City		
Regency	Total	Percentage
1. Karimun	1.214	10,9%
2. Bintan	368	3,3%
3. Natuna	375	3,4%
4. Lingga	271	2,4%
5. Kepulauan Anambas	476	4,3%
City		
1. Batam	7.379	66,1%
2. Tanjungpinang	1.074	9,6%
Kepulauan Riau	11.157	100,0%

Sources: registrasi.ut.ac.id

The data in Table 4 shows that Batam City has the most UT students in Kepulauan Riau Province. 66,1 % UT Batam Regional Offices students are in Batam City. Management is the most students in Batam City, most of them are factory workers.

Table 5. UT Batam regional offices students by age group semester 2022/2023

Age Group	Total	Percentage
18-19	273	2,45%
20-24	5357	48,01%
25-29	2445	21,91%
30-34	1096	9,82%
35-39	859	7,70%
40-44	661	5,92%
45-49	319	2,86%
50-54	113	1,01%
55-59	30	0,27%
60+	4	0,04%
Kepulauan Riau	11.157	100,00%

Sources: data processed

From the data in Table 5 shows that 72,37 % of UT Batam regional office students are under 30 years old. This proves that at this time, UT is the choice for young people to continue their higher education. UT students' profile was initially dominated by practicing teachers and



working adults but has in the past several years changed toward younger adults with various professions. And also students who fresh graduated from high school.

Table 6. Percentage contribution UT Batam Regional offices students in Kepulauan Riau by regency/city

Regency/City	Population by and Sex in Kepulauan Riau Province				UT Batam Regional Offices Students		
	Kabupaten/Regency	Male	Female	Total	Percentage	Total	Percentage
1. Karimun		136.283	129.894	266.177	12,2%	1.214	0,46%
2. Bintan		85.423	80.358	165.781	7,6%	368	0,22%
3. Natuna		43.924	41.522	85.446	3,9%	375	0,44%
4. Lingga		53.051	49.802	102.853	4,7%	271	0,26%
5. Kepulauan Anambas		25.999	24.297	50.296	2,3%	476	0,95%
Kota/City							
1. Batam		646.639	622.774	1.269.413	58,2%	7.379	0,58%
2. Tanjungpinang		120.833	119.021	239.854	11,0%	1.074	0,45%
Kepulauan Riau		1.112.152	1.067.668	2.179.820	100,0%	11.157	0,51%

Sources : BPS Kepulauan Riau, registrasi.ut.ac.id, self-processed data

The data in Table 6 show that UT Batam Regional offices contribute 0,51% of the total population who studying at universities in Kepulauan Riau Province. UT Students in Kepulauan Anambas have the highest contribution of 0,95%. Kepulauan Anambas is a small archipelago of Indonesia, located 150 nautical miles (278 km; 173 mi) northeast of Batam Island in the North Natuna Sea between the Malaysian mainland to the west and the island of Borneo to the east. This proves that UT can reach the unreached and provide expansive opportunities for Indonesian citizens, wherever their place of residence, to attain higher education.

Table 7. Percentage contribution UT Batam Regional offices students in Kepulauan Riau by Age Group

Age Group	Population by Age Groups and Sex in Kepulauan Riau Province				UT Batam Regional Offices Students		
	Male	Female	Total	Percentage	Age Group	Total	Percentage
0-4	99.767	94.952	194.719	8,9%			
5-9	99.549	94.766	194.315	8,9%			
10-14	91.920	87.432	179.352	8,2%			



Population by Age Groups and Sex in Kepulauan Riau Province					UT Batam Regional Offices Students		
Age Group	Male	Female	Total	Percentage	Age Group	Total	Percentage
15-19	90.703	85.094	175.797	8,1%	18-19	273	0,16%
20-24	99.503	97.296	196.799	9,0%	20-24	5.357	2,72%
25-29	95.689	94.682	190.371	8,7%	25-29	2.445	1,28%
30-34	95.730	93.475	189.205	8,7%	30-34	1.096	0,58%
35-39	91.639	91.865	183.504	8,4%	35-39	859	0,47%
40-44	86.092	84.357	170.449	7,8%	40-44	661	0,39%
45-49	77.647	73.884	151.531	7,0%	45-49	319	0,21%
50-54	61.728	56.938	118.666	5,4%	50-54	113	0,10%
55-59	46.653	41.678	88.331	4,1%	55-59	30	0,03%
60-64	32.487	29.201	61.688	2,8%	60+	4	0,01%
65-89	20.143	18.738	38.881	1,8%			
70-74	12.123	11.883	24.006	1,1%			
75+	10.779	11.427	22.206	1,0%			
Kepulauan Riau	1.112.152	1.067.668	2.179.820	100,0%		11.157	5,94%

Sources : BPS Kepulauan Riau, registrasi.ut.ac.id, self-processed data

From the data in Table 7 shows the highest percentage of population by age group and sex in Kepulauan Riau Province at 20-24 age group for 9,0%. UT Batam Regional offices give contribution 2,72 % at 20-24 age group who studying at universities in Kepulauan Riau Province. This proves that UT provides higher education services for those who, because of their work or due to other reasons, are not able to further their education in face-to-face higher education institutions.

Services owned by UT that can be used by UT Regional offices Batam students in Kepulauan Riau can be a solution in supporting the learning process. Among them, e-learning UT, UT digital library, Virtual Reading Room, course enrichment materials, independent practice, and other online learning services, can follow face-to-face tutorials. With the continuous development of increasingly sophisticated smartphone technologies, it is important for UT to continuously improve its online learning system. The development of UT's mobile learning, which was started in 2013, has gone through several phases (Padmo, D. & Belawati, T. & Idrus, O. & Ardiasih, L.S., 2017). UT was also designed by the Government to collaborate with other universities and educational establishments in Indonesia. This is to allow UT to accept and provide services to students in all provinces throughout the country.

Open and Distance Education (ODE) plays a crucial role in reaching and empowering communities in remote and island regions. These areas often face unique challenges, including



geographic isolation, limited infrastructure, and limited access to educational opportunities. ODE can effectively address these challenges and make education accessible to the unreached populations in island regions.

Some key roles of Universitas Terbuka in Kepulauan Riau Province may include: (1) Distance Education: UT facilitates education for individuals who may not be able to attend regular universities due to geographic constraints, work commitments, or other personal reasons. This is particularly important in regions like Riau Island Province, where access to higher education institutions might be limited; (2) Accessibility: By offering open admissions, UT provides an opportunity for individuals from diverse backgrounds, including those with limited financial resources or physical disabilities, to pursue higher education; (3) Skills Enhancement: UT offers a range of study programs, including undergraduate and postgraduate degrees, and diploma programs. These programs enable students to acquire new skills and knowledge, which can contribute to their personal growth and career development; (4) Empowerment: Through education, UT empowers individuals in Kepulauan Riau Province to improve their socioeconomic status and contribute to the development of their communities.

4. Conclusions

In conclusion, Open and Distance Education is a powerful tool that can effectively reach and uplift communities in island regions. By providing flexible, cost-effective, and culturally relevant education, ODE contributes significantly to the development and empowerment of individuals and communities, helping them build sustainable and prosperous futures.

The role of Universitas Terbuka in Kepulauan Riau Province, like in other provinces, is to provide accessible and affordable higher education opportunities for individuals who may face barriers to attending traditional brick-and-mortar universities. It plays a significant role in promoting education and lifelong learning by offering flexible study options through distance learning methods, which include online courses, printed modules, and other multimedia materials.

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