LEARNING UNDERGRADUATE COURSES IN REGIONAL LANGUAGE (ODIA): CHALLENGES AND OPPORTUNITIES

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Abstract

This research looks at the challenges and opportunities of teaching and learning undergraduate courses in the Odia medium. It focuses on protecting cultural heritage while solving big problems in the system. Based on ideas from the NEP 2020, the study highlights how teaching in a student's mother tongue can make learning more inclusive and accessible. Using a mix of methods, data was collected from 117 students in different courses and semesters, including Odia and English medium students in almost equal numbers. Tools like surveys and interviews helped gather information about resources, teacher skills, how easy the lessons are to understand, career options, and the use of technology in education. The results show some big issues like limited resources (M = 9.26), lack of training for teachers (M = 8.12), and a strong preference for English-medium education in society. However, teaching in Odia also showed good results like clearer understanding of concepts, less academic stress, and better classroom participation. The study suggests solutions like investing in better resources, training teachers in both Odia and English, and using technology to improve Odia education. These findings give useful ideas for making education fairer and more inclusive while promoting regional languages.

Keywords: regional language, Odia medium, undergraduate, learning challenges, academic opportunities, multilingual education

Introduction

India's education system faces two main challenges: preserving its cultural traditions and adapting to a globalized world. Regional languages, like Odia, hold significant cultural and linguistic value but face many obstacles in becoming effective tools for higher education.

Over time, government policies have emphasized the importance of regional languages to promote equality and inclusion. The National Policy on Education (NPE, 1986) highlighted that learning in one's mother tongue helps students understand concepts better and feel more connected to what they study (NPE, 1986). Later, the Programme of Action (POA, 1992) underlined the need for quality teaching materials and training for teachers to use regional languages in education (POA, 1992).

The National Education Policy (NEP, 2020) renewed focus on this issue. It recommended using regional languages in undergraduate programs, wherever possible, to make education more inclusive and to preserve linguistic diversity (NEP, 2020). This aligns with the National Curriculum Framework (NCF, 2005), which supported culturally relevant teaching. It also showed how using regional languages could lower dropout rates and improve education, especially in rural and tribal areas (NCF, 2005). Despite these efforts, there are still problems. There aren't enough teaching materials, many teachers lack proper training, and society often favors English as the medium of instruction (Patra, 2018; Panigrahi, 2018).

At the same time, new opportunities can improve the situation, like using technology to broaden access, blending regional and English teaching methods, and promoting the cultural and mental benefits of education in regional languages (Saroa & Singh, 2020). This research looks into the challenges and solutions for using Odia as a medium of teaching at the undergraduate level. It offers ideas to create a fair and inclusive education system in Odisha while safeguarding Odia's cultural heritage. By analyzing issues and suggesting policies, the research aims to strike a balance between preserving linguistic traditions and meeting modern education needs.

Learning in regional language: A NEP 2020 Perspective

The National Education Policy (NEP, 2020) brings a significant shift in India's education system. It promotes inclusivity and cultural preservation by encouraging teaching in regional languages. For example, using the mother tongue, like Odia, in undergraduate education can improve students' understanding, critical thinking, and emotional connection to their studies (NEP, 2020). This idea builds on earlier recommendations from the National Curriculum Framework (NCF, 2005) and the National Policy on Education (NPE, 1986), which focused on fairness and making education accessible to everyone. One key goal of the NEP is to create quality textbooks and digital learning materials in regional languages, so students from diverse linguistic and socio-economic backgrounds can receive a good education (NEP,

2020). The policy also highlights how modern technology, such as e-learning and digital classrooms, can address challenges faced in regional language education (Saroa & Singh, 2020).

Teaching in Odia, specifically in Odisha, creates a meaningful and inclusive learning environment. It bridges the gap between urban and rural students, reduces dropout rates, and strengthens the cultural identity of marginalized groups (Patra, 2018; Mohanty & Mishra, 2024). The NEP further encourages collaboration between policymakers, educators, and technology experts to develop teaching strategies that integrate regional and global needs (NEP, 2020).

Challenges in Learning UG Course in Odia

i. Lack of Teaching Resources: There aren't enough textbooks, reference materials, or digital tools available in Odia, especially in rural areas. This makes it difficult to provide students with a complete and well-rounded education (Patra, 2018; NEP, 2020).

ii. Limited Teacher Training: Many teachers don't have proper training to teach effectively in Odia. As a result, teaching methods often remain outdated and less engaging for students. Studies have identified this as a major issue (POA, 1992; NCF, 2005).

iii. Preference for English: Society strongly favors English-medium education because it is seen as offering better career prospects. This mindset lowers the importance given to education in regional languages (Mohanty, 2015; NEP, 2020).

iv. Technological Challenges: Digital tools and e-learning platforms are not widely used to support teaching in Odia. This limits access to modern ways of teaching and learning (Saroa & Singh, 2020; NEP, 2020).

v. Problems in Assessments: Current exams focus more on memorization than critical thinking and creativity. This limits the potential of students learning in Odia (NCF, 2005; Patra, 2018).

vi. Limited Study Materials: Most big exams like UPSC, SSC, or JEE provide study materials mainly in English or Hindi, which makes it harder for Odia-medium students to prepare.

vii. Job Market Challenges: Society's preference for English-medium education leads to fewer job opportunities for Odia-medium graduates in national and international markets.

viii. Few Advanced Courses: There are not many options for postgraduate or specialized higher education courses in Odia. This discourages students from continuing in this medium.

ix. Policy Implementation Problems: Even though policies like the NPE (1986) and NEP (2020) are strong, they are not followed well due to funding issues, lack of coordination, and poor monitoring (POA, 1992; NEP, 2020).

Significance of the Study

Using Odia as a medium of instruction in undergraduate education is very important for protecting cultural traditions, improving learning, and promoting fairness in education. Policies like the National Education Policy (NEP, 2020), National Policy on Education (NPE, 1986), and Programme of Action (POA, 1992) have supported this idea. However, challenges like not enough teaching resources and a strong preference for English-medium education still remain (Patra, 2018; Mohanty & Mishra, 2024). This study fills a gap by carefully looking at the challenges such as lack of resources, problems with teaching methods, and issues in how students are assessed. It also examines opportunities like using technology, combining Odia and English teaching methods, and creating culturally relevant course materials (NEP, 2020; Panigrahi, 2018).

The study uses a mix of research methods to provide useful ideas for policymakers, teachers, and others to improve Odia-medium undergraduate education. It offers evidence-based suggestions for training teachers, improving resources, and using technology in education (NCF, 2005). For students, the research shows how learning in their mother tongue can help them connect better with their education, feel included, and stay in school longer—especially those from underprivileged communities (Mohanty, 2015; POA, 1992). By making regional language teaching modern and effective, this study aims to create a fair and culturally diverse education system (Saroa & Singh, 2020).

Research Objectives

i. To identify the challenges in learning UG courses in Odia with respect to
   a. Resources Availability
   b. Faculty Proficiency
   c. Ease to Understand
   d. Career and Academic Opportunities
   e. Tech. Integration

 ii. To identify the opportunities in learning UG courses in Odia with respect to

  a. Cultural Preservation

  b. Accessibility

  c. Scope for Higher Education

  d. Career and Job Opportunities

  e. Other

Hypothesis

 i. There exists no significant difference in challenges perceived by students with reference to their medium of instruction.

 ii. There exists no significant difference in opportunities perceived by students with reference to their medium of instruction.

Sample

The sample for this study comprises 117 participants, including undergraduate students, selected from colleges in Odisha offering Odia & English-medium programs. The participants represent diverse academic streams, including Education, History, and Political Science, ensuring a balanced perspective. Convenient sampling was employed to include students across different semesters—2nd, 4th, and 6th—providing insights into varied academic experiences. Gender representation was also considered, with 95 female and 22 male participants, alongside a focus on language preference, dividing the sample almost equally between Odia-medium (59 participants) and English-medium (58 participants) students. This comprehensive approach ensures that the sample accurately reflects the challenges and opportunities faced in teaching and learning undergraduate courses in Odia.
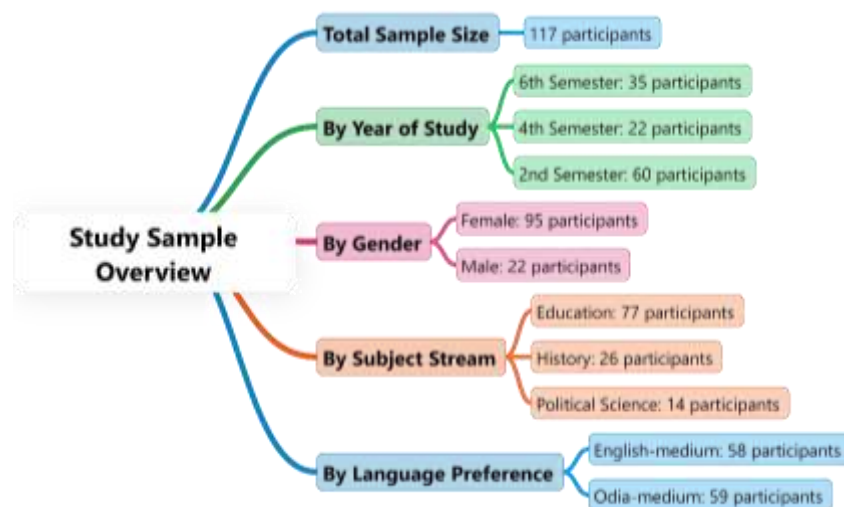

Figure 1: Sample Distribution

Tools and Techniques Used

Table 1: Tools and Techniques Used

Name of the Instrument	Obj. Covered	Data Source	Analysis Tech.	Dimension Covered
Rating Scale for Challenges and Opportunities	i, ii	UG Students	M, SD, t test	Opportunities and Challenges
Interview Schedule	i, ii	UG Students	Thematic Analysis	Opportunities and Challenges

Major Findings

Table 2: Descriptive Analysis for Challenges in Teaching Learning UG in Regional Language (Odia)

Category	Dimensions	Statistics	Resources Availability 5-15	Faculty Proficiency 5-15	Ease to Understand 5-15	Career and Academic Opportunities	Tech. Integration 5-15	Overall 25-75
All	Overall	M	9.41	8.15	9.38	10.51	9.18	9.38
	N=117	SD	2.32	0.68	0.47	2.44	0.95	0.87
Department	Education	M	9.17	8.09	9.16	10.51	9.14	46.06
	N=77	SD	2.50	1.78	2.35	2.66	2.26	8.04
	History	M	10.35	8.65	10.35	10.42	9.38	49.15
	N=26	SD	1.32	1.06	1.47	1.17	0.90	3.57
	Pol Sc.	M	9.00	7.50	8.79	10.71	9.00	45.00
	N=14	SD	2.39	1.70	1.72	3.02	1.92	5.08
Semester	6th Sem	M	8.97	8.14	9.83	10.63	9.86	47.43
	N=35	SD	2.53	1.63	2.26	2.65	2.20	8.04
	4th Sem	M	8.91	7.36	8.82	11.00	9.41	45.50
	N=22	SD	2.33	1.40	1.97	2.98	2.06	6.33
	2nd Sem	M	9.85	8.43	9.32	10.27	8.70	46.57
	N=60	SD	2.14	1.69	2.16	2.09	1.72	6.78
Gender	Female	M	9.50	7.91	9.27	10.82	9.32	46.82
	N=95	SD	2.20	1.51	2.03	2.44	1.73	4.82
	Male	M	9.39	8.20	9.40	10.44	9.15	46.58
	N=22	SD	2.36	1.69	2.20	2.45	2.05	7.52
Medium	English	M	9.26	8.17	9.34	10.36	9.02	46.16
	N=58	SD	2.66	1.52	2.24	2.50	2.16	7.65
	Odia	M	9.56	8.12	9.41	10.66	9.34	47.08
	N=59	SD	1.94	1.79	2.10	2.40	1.82	6.49

From the above table it was found that,

Resource Availability (Range 5–15)

i. Students generally face challenges due to insufficient resource availability, with an overall mean score of 9.41.

ii. History students report the highest availability of resources (mean: 10.35), whereas Political Science students face notable resource shortages (mean: 9.29).

iii. Odia medium students rate resource availability slightly higher (9.56) than English medium students (9.29).

Faculty Proficiency (Range 5–15

i. There are significant concerns regarding faculty proficiency, with an overall mean score of 8.15, indicating room for improvement.

ii. History department faculty received the highest proficiency score (8.65), but Political Science scored the lowest (7.5).

iii. The ratings remain close for both Odia and English medium students, though marginally better in the Odia medium (8.12).

Ease of Understanding (Range 5–15)

i. Students find it moderately challenging to comprehend subjects in Odia medium, with an overall mean of 9.38.

ii. History students found their coursework most comprehensible (10.35), compared to the lowest scores in Political Science (8.79).

iii. Odia medium students reported a slightly higher ease of understanding (9.41) than their English medium counterparts (9.34).

Career and Academic Opportunities (Range 5–15)

i. Concerns about career prospects are evident, although the overall mean score of 10.51 shows moderate optimism.

ii. Political Science students feel relatively more positive about opportunities (10.71), while Education department students are less confident (10.51).

iii. Odia medium students rated opportunities slightly higher (10.66) than English medium students (10.56).

Technological Integration (Range 5–15)

i. Technological challenges are prominent, with an overall mean of 9.18.

ii. Political Science scored highest in tech integration (10.71), while Education scored lowest (9.14).

iii. Again, Odia medium students see more progress in tech integration (9.47) compared to English medium students (9.24).

Overall Challenges (Range 25–75)

i. The cumulative challenges faced by students across all parameters result in an overall mean score of 46.38, reflecting moderate difficulty.

ii. History students report slightly fewer overall challenges (49.15) compared to students in the Education department (46.06).

iii. Students in the Odia medium see slightly better overall conditions (47.48) than their English medium peers (45.76).

Analysis of Interview Data

i. Challenges with Technical Terms and Concepts: There is no standard Odia terminology for technical terms, which creates confusion for students. Poor or inconsistent translations make it even harder to understand. Students often use both Odia and English (code-switching), rely on English resources, or ask peers for help to understand concepts.

ii. Scarcity and Quality of Odia Textbooks: Good textbooks and reference materials in Odia are hard to find. Many of the existing ones are old, poorly translated, or lack proper content. As a result, students depend on English materials, which is a challenge for those who are not fluent in English.

iii. Difficulties Transitioning Between Odia and English: Switching between Odia and English causes mental stress, especially when students need to use English for exams, interviews, or jobs. This becomes a major challenge when they compete in national or international settings where English is essential.

iv. Teachers' Struggles with Explaining UG Content in Odia: Teachers often face difficulties due to a limited Odia vocabulary and a lack of teaching resources. For complex topics, they frequently switch to English, which interrupts the flow of learning for students. Without proper training in teaching undergraduate content in Odia, the overall quality of education suffers.

v. Challenges in Completing Academic Tasks in Odia: Students have trouble using digital tools for writing in Odia or following proper writing formats. Typing and explaining complex ideas in Odia is challenging. As a result, many students end up

completing their tasks in English first and then translating them into Odia, which takes extra time and effort.

vi. Summary of Findings: Teaching and learning in Odia at the undergraduate level face many problems. These include the lack of resources, difficulties switching between Odia and English, and insufficient support for teachers and students. To solve these problems, efforts are needed to standardize terms, improve resources, train teachers, and help students become skilled in both Odia and English for better academic and career success.

Difference in Challenges in Teaching Learning UG in Regional Language (Odia) with Respect to Medium of Education

Table 3: Difference in Challenges in Teaching Learning UG in Regional Language (Odia) with Respect to Medium of Education

Group	N	M	Variance	df	t crit	t value	Remark
English	58	46.1552	58.5194	115	1.98081	-0.7093	NS
Odia	59	47.0847	42.0789				

From the table 3, the analysis reveals no statistically significant difference in the challenges faced in teaching and learning undergraduate courses between English-medium and Odia-medium groups, as the calculated t-value (-0.7093) is below the critical t-value (1.98081). While the Odia-medium group shows a slightly higher mean score (47.0847) compared to the English-medium group (46.1552), indicating marginally greater perceived challenges, the results remain inconclusive.

Descriptive analysis for Opportunities in Teaching Learning UG in Regional Language (Odia)

Table 4: Descriptive analysis for Opportunities in Teaching Learning UG in Regional Language (Odia)

Category	Dimensions	Statistics	Cultural Preservation	Accessibility 5-15	Higher Education 5-15	Career & Job Opportunity	Other 5-15	Overall 25-75
All	**Overall**	M	11.56	11.21	10.06	10.27	10.71	53.82
	N=117	SD	0.78	0.92	2.32	1.66	0.47	0.61
Department	Education	M	11.73	11.30	10.05	10.12	10.71	53.91
	N=77	SD	1.68	1.75	2.65	1.91	1.87	6.74
	History	M	11.73	11.30	10.05	10.12	10.71	53.91
	N=26	SD	1.68	1.75	2.65	1.91	1.87	6.74
	Pol Sc.	M	11.57	11.64	9.43	10.43	10.64	53.71

	N=14	SD	1.40	1.91	2.24	1.60	1.91	5.85
Semester	**6th Sem** **N=35**	M	11.37	10.89	10.00	9.97	10.31	52.54
		SD	1.97	1.92	2.51	1.85	2.03	7.27
	4th Sem **N=22**	M	12.09	11.41	10.23	9.91	10.36	54.00
		SD	1.60	1.50	2.45	2.07	1.68	6.70
	2nd Sem **N=60**	M	11.48	11.33	10.03	10.58	11.07	54.50
		SD	1.13	1.45	2.37	1.58	1.38	4.74
Gender	**Fem**ale **N=95**	M	11.40	11.11	9.94	10.13	10.55	53.12
		SD	1.43	1.61	2.31	1.78	1.70	5.92
	Male **N=22**	M	12.27	11.68	10.59	10.91	11.41	56.86
		SD	1.72	1.59	2.81	1.63	1.40	5.35
Medium	Eng**lish** **N=58**	M	11.53	11.16	9.95	10.29	10.76	53.69
		SD	1.66	1.52	2.37	1.79	1.72	6.24
	Odia **N=59**	M	11.59	11.27	10.17	10.25	10.66	53.95
		SD	1.39	1.71	2.46	1.78	1.65	5.76

From the above table it was found that,

i. Cultural Preservation: Scoring an average of 11.56, this shows how Odia-medium education helps students connect with their language and culture. It strengthens their identity and emotional connection, making their education richer.

ii. Accessibility: With an average score of 11.21, Odia-medium instruction is seen as inclusive. It provides better access to education for students in rural and marginalized communities, reducing social gaps and promoting fairness.

iii. Higher Education: With an average score of 10.06, there is some hope for students to pursue higher studies in the Odia medium. However, it shows the need for more advanced courses and better resources in Odia.

iv. Career and Academic Opportunities: Scoring an average of 10.27, this indicates positive but not very strong opportunities for careers and further studies. Addressing societal biases against Odia-medium education and favoring English could help realize the full potential of education in Odia.

v. Other Opportunities: With a score of 10.71, this reflects benefits like improved classroom participation and applying knowledge to real-life situations.

Overall: A total score of 53.82 highlights that Odia-medium education creates a favorable and inclusive environment. It enriches students' learning experiences in meaningful ways.

Analysis of Interview Data

i. Better Understanding of Complex Topics: Learning in Odia makes it easier for students to grasp difficult subjects. Thinking and studying in their native language

helps them relate to topics like socio-economic issues or cultural studies, making them more understandable.

ii.   Less Academic Stress: Studying in Odia reduces academic stress compared to learning in English. Students feel more at ease and can concentrate better without the added pressure of understanding a second language.

iii. More Confidence in Classroom Discussions: Using Odia in classroom activities and discussions boosts students' confidence. Being comfortable with the language allows them to participate more actively and feel included.

iv.   Impact of Odia Learning Materials: Despite the limited availability of Odia learning resources, the materials that do exist have a positive effect on students' academic performance. Textbooks, reference tools, and digital resources make learning easier and reduce reliance on English-based materials.

v.   Connecting to Real-Life Situations: Teaching in Odia helps students relate theories to local examples and practical scenarios. This makes education more relevant and meaningful in their lives.

Difference in Opportunities in Teaching Learning UG in Regional Language (Odia) with Respect to Medium of Education

Table 4: Difference in Opportunities in Teaching Learning UG in Regional Language (Odia) with Respect to Medium of Education

Groups	N	M	Variance	df	t crit	t value	Remark
English	58	53.6897	38.9195	115	1.98081	-0.2338	NS
Odia	59	53.9492	33.187				

The t-test analysis compares the perceived opportunities in teaching and learning at the undergraduate (UG) level between two groups, English-medium (Eng) and Odia-medium (Odia) participants. The sample sizes consist of 58 participants for the English-medium group and 59 participants for the Odia-medium group. The mean scores for the two groups are 53.69 and 53.95, respectively, with the variance being slightly higher for the English-medium group (38.92) compared to the Odia-medium group (33.19). The t-test, conducted with 115 degrees of freedom, produced a calculated t-value of -0.2338, which is smaller than the critical t-value of 1.98081.

Discussion of result

The discussion of the results draws connections with existing studies, showcasing both alignments and contrasts. The identified resource constraints (M = 9.26) align with Patra (2018), who highlighted inadequate teaching resources and systemic neglect of regional

language development. Similarly, Mohanty and Mishra (2024) emphasized the absence of culturally relevant materials in multilingual education, mirroring the disparities uncovered here. Faculty proficiency challenges (M = 8.12) resonate with Sahoo (2022), who identified the lack of trained educators in tribal and regional contexts. Dash (2022) similarly highlighted how untrained educators affect comprehension across subjects, including Odia. Additionally, ease of understanding course content (M = 9.41) is corroborated by Panigrahi (2018), who identified outdated and bilingual teaching methods as barriers to effective learning. Opportunities for cognitive development through mother tongue instruction (M = 10.05) parallel Mohanty (2015), who demonstrated that early education in a child's first language enhances engagement and comprehension. Career and academic opportunities (M = 10.66) align with concerns raised by Rao, Sahu, and Dip (2024) regarding linguistic and cultural gaps faced by Odia-medium students transitioning to English-medium education. Patra (2018) also found that societal biases strongly favor English-medium education. Challenges with using technology in education (M = 9.34) match the findings of Saroa and Singh (2020), who pointed out the lack of digital tools for teaching in regional languages.

Differences from other studies reveal areas that need more focus. For example, differences in resources between schools, with variability (SD = 2.66), show inequalities even in cities. This detail was not discussed in depth by Dash (2022) or Sahoo (2022), who mainly looked at rural problems. Gender-specific issues, like barriers faced by female students (M = 10.72), differ from Mohanty (2015), who mentioned such issues only briefly. Similarly, challenges in specific academic streams, like the higher technology issues in History (M = 9.64), go beyond the general discussions in Patra (2018). On the other hand, opportunities for using technology in teaching (M = 10.71) look more hopeful compared to the negative view from Saroa and Singh (2020), showing that recent progress has been made.

Implication

The implications of this study are multifaceted and highlight crucial areas for intervention and improvement in higher education conducted in the Odia medium.

i. Standardizing Odia Technical Terms: The study shows the need to create clear and consistent Odia terms for technical subjects. Linguistic experts, teachers, and policymakers need to work together to make a useful and easy-to-understand list of terms.

ii. Improving Odia Resources: There is a big need for better textbooks and reference materials in Odia. Investing in accurate and modern resources can give students a better learning experience and reduce their reliance on English, especially for those not fluent in it.

iii. Training Teachers in Odia: The study highlights the need to train teachers in using Odia for teaching. Workshops and programs that focus on teaching strategies and regional language education will help improve the quality of education.

iv. Helping with Language Transitions: Students face difficulties switching between Odia and English. Offering programs for language training and bilingual resources can reduce the mental strain and help students do better academically and professionally.

v.   Using Technology in Odia Education: Technology offers significant potential for improving Odia-medium education. Developing better digital tools and platforms in Odia, along with enhancing digital infrastructure, can modernize education in regional languages.

vi. Making Education Inclusive and Relevant: Teaching in Odia creates a more inclusive learning environment by linking lessons to local realities and easing academic stress. Policymakers and schools should prioritize promoting Odia-medium education as an enriching and valuable option to challenge the bias toward English-medium education.

Conclusion

The study shows both challenges and opportunities in implementing Odia-medium undergraduate education. Some major challenges include a lack of good-quality resources, insufficient teacher training, societal bias toward English, difficulties in switching between Odia and English, technological issues, and gender-related barriers. These problems highlight the urgent need for academic and policy-level actions. On the positive side, the study also identifies opportunities like better understanding of complex topics, reduced academic stress, more active classroom participation, and increasing possibilities for using technology. These factors could bring significant benefits to education in regional languages. To tackle these challenges, specific steps are needed, such as creating high-quality learning resources, standardizing technical terms, training teachers, and using digital tools effectively. A combined effort from policymakers, educators, and other stakeholders can make Odia-

medium education more inclusive, culturally rich, and sustainable. This approach can support students' academic success while preserving Odisha's linguistic heritage.

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