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An Analysis of Challenges in Implementation of Nordic Model against Hybrid Educational Model of Pakistan

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Abstract

Objective of induction of this research were to analyze the challenges of the Nordic education model with the Pakistani hybrid education model and to identify the challenges pertaining to its implementation in our edu-political system. The researchers conducted survey from 400 randomly selected respondents comprising students and educators from secondary schools of Pakistan. It was identified that the Nordic model held effects on gender equality; teaching techniques; and teaching quality. The study concludes that the Nordic model has a positive impact on the quality of education, practices adopted in teaching, learning and equality of the genders. The political interference and poor practice of educational policies may act as a primary challenge to its implementation. The study adds to the literature pertaining to educational reform and offers practical recommendations to the policymakers, educators, and other stakeholders wishing to enhance the education system in Pakistan.

Keywords: Nordic education model, Pakistani education system, educational reform, gender equality in education, teaching practices, policy implementation, teacher training programs

Introduction

This study seeks to analyze challenges encountered in the implementation of the Nordic model in the education sector of Pakistan. The education systems of Nordic countries and Pakistan markedly differ as systems and are peculiar in their advantages and shortcomings (Afrin, 2017).

The comparative analysis of the Nordic model and the hybrid model of Pakistan's education system is quite helpful in understanding the merits and demerits of both models (Asghar, 2021). Pakistan is also going through the hybrid mode teaching and learning for quite sometimes now and in the aftermath of COVID-19, it has gained popularity (Qamar, et al., 2021). The hybrid model existing in Pakistan leverages digital tools and resources to enhance the learning experience, making education more accessible and flexible for students across various regions of the country. Hybrid learning in Pakistan has been characterized by the integration of e-Learning formats with traditional classroom teaching. Studies have shown that hybrid learning can effectively transform traditional clinical skills teaching into a more dynamic, flipped classroom model, enhancing the learning outcomes for students (Saeed, et al., 2023). The interaction model makes use of Information Communication Technologies to support learning with a view of extending education accessibility to students in every region of the nation (Hashmi, et al., 2022). Therefore, the implementation of hybrid learning in Pakistan has been defined as the use of e-Learning formats and materials combined with face-to-face lectures. Educational researches have indicated that hybrid learning can help redefine traditional pedagogy of clinic skills learning into the enhanced flipped classroom approaches which can have added value in terms of learning for the students (Saeed et al., 2023). However, the overall impact of such transformation as perceived by the teachers has been positive as they have recognized the usefulness of hybrid learning especially in boosting the level of students 'engagement and interacting with teaching aids (Tahseen, et al., 2023)). Additionally, present research has examined the outcome of implementing the hybrid approach drawing to a minimal level of credit attainment and the quality of student's Grade Point Average obtained under the hybrid mode and face-to-face instruction, affirming the efficacy of the hybrid mode of delivery (Ragni, et al., 2024).

It is quite evident that the teachers have expressed mostly favorable views of this digital transition. They recognized the utility of the blended learning approach in encouraging students' activities and providing them access to required learning materials (Tahseen, et al., 2023). Additionally, it has researched the effects of adopting the hybrid model to improve knowledge retention and conduct a numerous investigation regarding effectiveness of the hybrid approach towards the students' academic performance proven by the credit accumulation and the grade point average that, in turn, are statistically insignificant between the students learning in the hybrid and face to face mode (Ragni, et al., 2024).

Education systems in Nordic countries and in Pakistan are to some extent different and it is appropriate to look at the problems and opportunities both parties could face. The paper involves a comparison between the Nordic model and the hybrid model of the education system of Pakistan allowing the identification of the key benefits and drawbacks of each model.

Comparative Analysis of the Benefits of the Nordic Model and the Hybrid Model of Pakistan's Education System

Benefits of Nordic Model	Benefits of Pakistan Hybrid Model
<p>Equity and Inclusivity: The Nordic model emphasizes equality and inclusiveness and ensures that all students, regardless of their background, receive a quality education. This approach is widely integrated into the educational policies and practices of the Nordic countries (Frønes et al., 2020).</p> <p>Innovative Learning Environments: The Nordic countries prioritize innovative learning methods that encourage creativity and critical thinking. Digital use and integration of technology into the classroom are well supported, improving the learning experience (Olofsson and Lindberg, 2021).</p> <p>Teacher Professional Development: There is a strong focus on the continuing professional development of teacher's programs such as the</p>	<p>Flexibility: The hybrid model combines online and face-to-face communication and offers flexibility for students and teachers. This model has been very effective during the COVID-19 pandemic and has enabled continuous education (Saeed et al. 2023).</p> <p>Increased Access: The hybrid model reduces physical barriers by improving learning opportunities for students in remote or underserved areas by integrating digital tools (Tahseen et al. 2023).</p> <p>Cost-Effective: The implementation of hybrid learning can be more cost-effective than traditional methods as it reduces the need for infrastructure and resources (Ragni et al. 2024).</p>
<p>Collaborative Learning: The Nordic model fosters social skills and teamwork by encouraging individual work and cooperation among students (Jónasson and Bjarnadóttir, 2023).</p>	<p>Enhanced Engagement: Online Platforms can increase student engagement through interactive and engaging learning experiences (Means and Neisler, 2020).</p>

Comparative Analysis of the Disadvantages of the Nordic Model and the Hybrid Model of Pakistan's Education System

Disadvantages of Nordic Model	Disadvantages of Pakistan Hybrid Model
<p>Teacher Training: Due to its flexible nature the Nordic Model of teaching provides opportunities to teacher's professional training00.</p>	<p>Teacher Training: To transform hybrid learning, teachers need to be adept at using digital tools. However, many teachers lack the necessary training and skills, which can impact the quality of education (Ashfaq, 2023).</p>
<p>Digital Deliverance: The biggest ease in Nordic model is the digital deliverance to the learners. Students had access to reliable internet and digital devices, which can help them in their learning experiences (Salas-Pilco et al., 2022)</p>	<p>Assessment Challenges: Assessing student performance in hybrid environments can be challenging due to varying levels of student engagement and access to resources (Duong and Phuong, 2022).</p>
<p>Cultural homogeneity: The success of the Nordic model is mainly due to the homogeneity of the culture and society in these countries, which cannot be copied in different countries (Sahlström, 2020).</p>	<p>Infrastructure Issues: The success of the hybrid model depends on a strong digital infrastructure that continues to develop in many parts of Pakistan (Ayaz, 2024).</p>

Resistance to Change: Despite the innovation, there may be resistance to change in the educational process, especially among the older generation of teachers who are accustomed to traditional methods (Lomba-Portela, et al., 2022).

The analysis of the hybrid model and Nordic model of education in the context of Pakistani educational system is a major contribution to the modernization of the country's educational system. This kind of model gives solutions not only for the present drawback but also opens the avenue for a more effective and internet accessible future educational model.

On the one hand, there are certain prospects or advantages of each of the models of the educational system of Pakistan and, on the other hand, there are certain difficulties in their implementations. Nevertheless, the Nordic model stands out for its focus on equality, integration, and cutting-edge learning organization designs; however it does cost a lot of money and can experience robust organizational opposition to change. While, the hybrid model of education in Pakistan shows more flexibility and education access but has number of issues such as digital divide, training and infrastructural facilities. It is the understanding of these advantages and disadvantages that can be used by the policy-makers and educators both in Britain and in other countries to map out strategies for the improvement of their education systems.

Objectives

1. To analyze the efficacy of the Nordic education model with the Pakistani hybrid education model.
2. To identify the challenges encountered during implementation of the Nordic model within the Pakistani education system.
3. To assess the acquaintance and perceptions of the Nordic model among the Pakistani students and educators.
4. To evaluate the impact of the education-political framework on the execution of the Nordic model in Pakistan.

Research Design and Sampling Techniques

Research Design:

This research adopts the comparative analysis research design with survey to back up a view of assessing the feasibility and frailties of the Nordic model when transposed to the educational system of Pakistan. The study quantitative in its approach deals with the data collection process to obtain a detailed understanding of the students and educators' attitude and experience of the Nordic model in Pakistan. The survey results are analyzed through descriptive statistics and the

Kruskal-Wallis test to examine the respondents' familiarity with the Nordic model, its implementation rate, and the perceived benefits and challenges.

Sampling Techniques:

A random type of sampling method was used in the study to attain a random proportion of participants drawn from different regions of Pakistan that consists of students and educators. Therefore, the employed sample was made up of 400 participants who were students and teachers across the learning institutions. The strata were determined geographically; either being an urban or a rural resident. The other dimension was education strata, whether the individual was in secondary school or pursuing tertiary education. This helped in making sure that the sample that they used was more diverse and would represent a larger population hence getting generalized findings.

Results and Discussion

The descriptive statistics show that the flows of respondents' implementation of the Nordic Model in Pakistan are relatively high in terms of familiarity, positive transformation in teaching and learning, and gender equality. However, there is a consensus that the rate of current implementation and the impact of the eduo-political system pose significant challenges. Satisfaction with the curriculum and teacher qualifications shows moderate agreement, with notable variability in responses. These insights provide a comprehensive understanding of the respondents' views on the implementation and challenges of the Nordic Model in the Pakistani educational system.

Table 1:
 Responses showing Implementation of the Nordic model in Pakistani educational statutes

	N	Kruskal-Wallis H	P	M	Std.
Nordic Model of education is familiar with students.	400	0.029	0.866	3.91	.897
The rate of current implementation of the Nordic Model in Pakistani education statutes is low.	400	0.063	0.801	4.10	.730
The principles and values of the Nordic Model reflected in the Pakistani education system.	400	0.0003	0.985	3.64	.986
Nordic Model contributed to improving the quality of education in Pakistan.	400	1.573	0.21	3.95	.934
Students observed positive changes in teaching and learning practices due to the influence of the Nordic Model.	400	0.065	0.799	4.03	.754
The Nordic Model has influenced gender equality in Pakistani schools.	400	0.435	0.51	3.74	.951
Students are familiar with the eduo-political system in Pakistan.	400	0.541	0.462	3.64	1.078
The Pakistani eduo-political system affects the students.	400	0.417	0.518	3.99	.860
I observed political interference in educational institutions in Pakistan.	400	0.067	0.796	4.08	.813
Teacher and students are satisfied with the curriculum and textbooks used in Pakistani schools.	400	1.467	0.226	3.47	1.363
Teachers in Pakistan adequately trained and qualified.	400	0.522	0.47	3.59	1.114

The implementation of educational policies in Pakistan is low.	400	4.13	.988
Valid N (listwise)	400		

Interpretation:

1. **Familiarity with the Nordic Model:** Respondents generally agree that the Nordic Model of education is familiar to students, with a mean score of 3.91 and a standard deviation of 0.897, indicating a moderate level of agreement and relatively low variability in responses.
2. **Implementation Rate:** There is a strong agreement that the current implementation rate of the Nordic Model in Pakistani education statutes is low, with a high mean score of 4.10 and a lower standard deviation of 0.730, suggesting consensus among respondents.
3. **Reflection of Principles and Values:** The mean score of 3.64 for the reflection of the Nordic Model's principles and values in the Pakistani education system indicates a moderate level of agreement, but with a higher standard deviation of 0.986, showing more variability in opinions.
4. **Quality of Education:** Respondents agree that the Nordic Model has contributed to improving the quality of education in Pakistan, with a mean score of 3.95 and a standard deviation of 0.934, suggesting a positive impact.
5. **Positive Changes in Teaching and Learning:** There is strong agreement that the Nordic Model has led to positive changes in teaching and learning practices, with a high mean score of 4.03 and a standard deviation of 0.754, indicating a general consensus.
6. **Gender Equality:** The impact of the Nordic model on gender equality in schools in Pakistan was found to be moderate with a mean score of 3.74 and a standard deviation of 0.951, indicating differences in results.
7. **Familiarity with Eduo-political System:** The mean score of 3.64 for awareness of Pakistan's educational-political system indicates a moderate level of consensus with a standard deviation of 1.078, indicating a wide range of opinions.
8. **Impact of Eduo-political System:** Respondents generally agree that the Pakistani eduo-political system affects students, with a mean score of 3.99 and a standard deviation of 0.860, indicating a strong perceived impact.
9. **Political Interference:** There is strong agreement on the observation of political interference in educational institutions, with a high mean score of 4.08 and a standard deviation of 0.813, suggesting a consensus.
10. **Satisfaction with Curriculum and Textbooks:** The mean score of 3.47 indicates moderate agreement with satisfaction levels for the curriculum and textbooks used, with a higher standard deviation of 1.363, showing significant variability in responses.

11. **Teacher Training and Qualification:** The mean score of 3.59 for the adequacy of teacher training and qualifications shows moderate agreement, with a standard deviation of 1.114, indicating some variability in opinions.
12. **Implementation of Educational Policies:** There is a strong agreement that the implementation of educational policies in Pakistan is low, with a high mean score of 4.13 and a standard deviation of 0.988, suggesting a widely shared view.

The Kruskal-Wallis test results indicate that there are no statistically significant differences between the groups for any of the statements. Specifically, the results are as follows: for the familiarity of students with the Nordic Model of education (Kruskal-Wallis $H = 0.029$, $p = 0.866$), there is no significant difference between groups. Similarly, the principles and values of the Nordic Model reflected in the Pakistani education system (Kruskal-Wallis $H = 0.063$, $p = 0.801$) show no significant group differences. The contribution of the Nordic Model to improving the quality of education in Pakistan (Kruskal-Wallis $H = 0.0003$, $p = 0.985$) and the observation of positive changes in teaching and learning practices due to the influence of the Nordic Model (Kruskal-Wallis $H = 1.573$, $p = 0.210$) also do not differ significantly across groups. Furthermore, the influence of the Nordic Model on gender equality in Pakistani schools (Kruskal-Wallis $H = 0.065$, $p = 0.799$), familiarity with the eduo-political system in Pakistan (Kruskal-Wallis $H = 0.435$, $p = 0.510$), and the impact of the Pakistani eduo-political system on students (Kruskal-Wallis $H = 0.541$, $p = 0.462$) show no significant differences. The observations of political interference in educational institutions (Kruskal-Wallis $H = 0.417$, $p = 0.518$), satisfaction with the curriculum and textbooks used in Pakistani schools (Kruskal-Wallis $H = 0.067$, $p = 0.796$), the adequacy of teacher training and qualifications in Pakistan (Kruskal-Wallis $H = 1.467$, $p = 0.226$), and the implementation of educational policies in Pakistan (Kruskal-Wallis $H = 0.522$, $p = 0.470$) all reflect no significant differences between groups. This overall lack of statistically significant differences suggests that the responses to the Likert scale items do not vary significantly across different demographic groups, such as gender.

Kruskal-Wallis Test Results

The Kruskal-Wallis test results show no statistically significant differences between demographic groups for any of the statements, suggesting that perceptions of the Nordic Model and related educational issues are consistent across different segments of the population.

Discussion

The results show the work-related situations' moderate level of identification with the Nordic model among students and educators; however, low is the extent to which the introduced model is implemented, which points at a vast gap between the awareness and the practice. The data show general knowledge of the Nordic model of education among students, as evidenced by the

mean score of 3.91 and the standard deviation of 0.897. This suggests a moderate level of knowledge and understanding of the Scandinavian model in education. number of students. The relatively small change in the results strengthens this adjustment model. However, this awareness does not necessarily translate into good practice as other responses point to serious problems. There is a strong consensus that the level of implementation of the Scandinavian model in Pakistan's education situation is low, with a maximum score of 4.10 and a standard deviation of 0.730. This study shows that there is a significant difference between defining and describing the program. The small differences in the results indicate that this view is widely shared among the respondents, which highlights the systemic challenges in implementing and integrating the principles of the Scandinavian model into Pakistan's education sector. The mean score of 3.64, expressing the principles and values of the Scandinavian model in Pakistan's education system, with a high standard deviation of 0.986, indicates a mixed view. The difference may be due to differences in regional practices, institutional policies, or demographic characteristics of the respondents. This study highlights the need for a sustainable strategy to align Pakistan's education system with the values of the Nordic model. Respondents generally agreed that the Scandinavian model has made a significant contribution to the quality of education in Pakistan, with a mean score of 3.95 and a standard deviation of 0.934. However, the differences at the medium level suggest that these benefits are not experienced equally, probably due to inconsistent implementation methods. With a high mean score of 4.03 and a standard deviation of 0.754, there is a strong consensus that there have been positive changes in teaching and learning due to the Nordic Model. This shows that the strength of the Nordic Model is considered effective in creating the best way of teaching and learning. The relatively small number of changes suggests that these positive changes are popular among the participants. There is a moderate level of agreement on the impact of the Scandinavian model on gender equality in schools in Pakistan with a mean score of 3.74 and a standard deviation of 0.951. While there is a positive trend, many variables point to a perception that this may be due to traditional culture and practices. This suggests that although the Scandinavian model promotes equality, its effects differ in different parts of Pakistan.

The mean score of 3.64 and standard deviation of 1.078 for awareness of Pakistan's educational-political system indicate moderate agreement and high variability. This difference may be due to differences in educational attainment among the respondents and their exposure to various aspects of education policy. A good understanding of education policies is essential for the implementation of any education model including the Nordic model. Respondents generally believe that Pakistan's education-political system affects students, with a mean score of 3.99 and a standard deviation of 0.860. This indicates a significant influence indicating the significant role of political forces in creating educational outcomes. The relatively small number of changes indicates that the respondents are aware of these influences. There is strong agreement on whether there is political interference in educational institutions, with a maximum score of 4.08 and a standard deviation of 0.813. This agreement highlights the extent to which political factors influence politics and education, often to their detriment. Applying a model such as the

Scandinavian model. Addressing these complex policy issues is critical to achieving effective educational reform. The mean score of 3.47 and the maximum deviation of 1.363 for satisfaction with curriculum and books indicate moderate agreement and high variability. This indicates that although some participants were satisfied, there was much disagreement, which may reflect differences in the quality of courses and publications available in different regions and institutions. The mean ratio is 3. For teacher education and qualification, 59 indicates a moderate level of agreement with the variables with a standard deviation of 1.114. This shows that although the need for well-educated and qualified teachers is generally accepted, experience and opinions differ. The development of teacher training programs is essential for the implementation of the Nordic model. There is a strong consensus that the implementation of education policy in Pakistan is low with a high score of 4.13 and standard deviation is 0.988. This consensus is a major obstacle to education reform. The variables show that although the problem is known, its severity can vary within the same range. Effective policy implementation is essential to realize the potential of the Scandinavian model in Pakistan.

Implications

The results reveal that while there is positivity towards Nordic Model's future effectiveness, specifically in coping methods and instructional style and gender equity, there are issues with practicing it. These challenges are further worsened by political interferences, unevenness in policies' implementation, and inconsistency in the level of satisfaction with the curriculums as well as the quality of teachers. To overcome these challenges, one needs to consider such a strategy as having policy interventions, increasing the qualifications of teachers, and minimizing political influences. If Pakistan manages to implement effective strategies in addressing such issues, it will be able to maximize on the benefits of the Nordic Model in enhancing the country's educational system.

Conclusion

The discussion of the introduction of the Nordic Model in the educational statutes of Pakistan presents a multifaceted picture where the initiatives' potential and major difficulties can be considered. The results clearly shown that respondents have a rather high level of awareness about the Nordic Model and having a positive attitude with regards to its influence on teaching approaches and educational quality as well as on gender parity. But the low implementation rate and the high variability in the extent of the principles' reflection indicate essential challenges that must be overcome.

Another of the urgent problems is political influence within the sphere of education, herein being the main problem for the implementation of new educational paradigms within schools and universities. Moreover, the implementation of educational policies in the countries remains unequal, many curricula and teacher training programs remain questionable, which complicates the picture, calling for systematic changes. To implement the findings of this research, there is a

need for policy changes and improving the ongoing and future professional development of teachers to adapt to the Nordic model's implementation in Pakistani schools. If Pakistan offshore these challenges it can utilize the Nordic model strengths to have a better education structure that is more productive and equal.

In this way, the challenges can be solved to build the stronger education system for the country that will practically consist of the commitments of the progressive elements of the Nordic Model and at the same time, it will address the concerns of the diversifying students of Pakistan. Given the above positive outcomes connected with the influence of the Nordic Model in teaching practices and gender equality, it is possible to notice that there is a definite substrate for further cooperation in enhancing these effective principles. Thus, Pakistani educators and policymakers should demonstrate determination in pursuit of enhancing the quality of educational services and promoting society's educational success rates consciously and systematically.

Thus, it can be concluded that, although the process of realizing elements of The Nordic Model in detail in the context of Pakistan is not entirely unproblematic, it is worth trying to achieve this goal due to the possible positive results. If Pakistan's educational stakeholders work collectively and introduce appropriate changes, the identified facets of the Nordic Model can be effectively implemented, ensuring the country's schools provide equal, qualitative, and innovative education. The change is not only significant in the present schooling environment but in the future of the country's socio-economic growth as well. The way may be long, but at end of the tunnel is the hope of betterment of education system of Pakistan.

Recommendations

To obtain the best result of the Nordic Model in Pakistan, there is a need to employ a multifaceted approach that involves:

1. **Policy Reforms:** Developing education policies to minimize bureaucratic obstacles and implement them in all regions.
2. **Teacher Training:** Develop a teacher training program that will ensure that teachers are adequately equipped to adopt and adapt the principles of the Nordic model.
3. **Mitigating Political Interference:** Take measures to reduce political interference in educational institutions by creating a sustainable and effective education reform system.
4. **Curriculum Development:** Providing a consistent learning experience by ensuring that curriculum and materials are of high quality and accessible to all students.

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