



Vol. 2 No. 5 (December) (2024)

Alignment between Single National Curriculum (Snc-2022) and Textbooks of English for Grade-5, Published by Khyber Pakhtunkhwa Textbook Board, Pakistan

Sanober Bano (Corresponding Author)

PhD Scholar (Education), Institute of Education & Research, University of Science & Technology Bannu. Email: Sanoberali407@gmail.com

Dr. Safdar Rehman Ghazi

Professor of Education, Dean Faculty of Social Sciences, University of Science & Technology Bannu. Email: drsrghazi@yahoo.com

Sadaf Bano

PhD Scholar (Education), Institute of Education & Research, University of Science & Technology Bannu. Email: missadafali@gmail.com

Abstract

The purpose of this research was to analyse the alignment of the Single National Curriculum 2022 of English with the textbooks published by the Khyber Pakhtunkhwa Textbook Board for Grade 5 *focusing on the Specification of student Learning Objectives (SLOs) pertaining to competencies such as: Oral Communication, Reading & Critical thinking, Vocabulary & Grammar and Writing. In this study a Quantitative based Document Analysis was used as a research design. For data analysis, the survey of the enacted curriculum method (SEC) was used to measure the degree of alignment between the curriculum and textbook about SLOs with respect to each selected competency. Using the alignment index method provided by Porter (2002), a quantitative measure of alignment for each competence was obtained and graphs were used to display the findings accordingly. Overall a considerable misalignment was found using Alignment Index (AI 0.65) between 5th grade curriculum and textbook, however, this misalignment was not same for all the competencies.*

Keywords: Curriculum, Textbook, Student Learning Outcomes, Competencies, Oral Communication, Reading & Critical thinking, Vocabulary & Grammar, Writing.

Introduction

Education is a cornerstone of a nation's progress, shaping the future of its citizens and the trajectory of its development. Central to the effectiveness of any education system is the alignment between curriculum and textbooks, which are pivotal in shaping the learning experience for students. The curriculum is made up of many different educational components; as a result, it may be seen as a large phenomenon with a variety of methods for educating people in a school environment. One of them is the function textbooks play in the teaching and learning process for all topics, including the teaching of English.

If we go back in time to Franklin Bobbit's book "The Curriculum," which was



Vol. 2 No. 5 (December) (2024)

released in 1918, we find the curriculum's official origin. Numerous changes were made to the goals, guiding concepts, and curriculum's contents between Bobbit's time and Tyler's. Behaviourism, Cognitivism, Humanism, Sociology, and Curriculum are some psychological theories of learning that formed the main pillars of curriculum development. Checking whether texts are linked to the Single National Curriculum (SNC) 2022 is therefore required. Alignment Three fundamental forms of curriculum design exist: Subject-centered, learner-centered and problem-centered designs are examples.

Kelly (2004) defines curriculum as the many kinds of teaching and learning programmes. The procedure for making choices and updating the curriculum is known as the model of curriculum development. The Tyler model, Taba model, Oliva model, and Beaucham model are at least four recognised and often used curriculum development models. The names of curriculum developers served as the basis for the model names. According to McNeil (2006), curriculum may be created on four different levels: institutional, societal, instructional, and personal. The several types of curriculum include concealed curriculum, taught curriculum, learned curriculum, assessed curriculum, and implemented or supported curriculum.

In Pakistan, the introduction of the Single National Curriculum (SNC) in 2022 marked a significant step in the ongoing efforts to standardize education across the country. This initiative aimed to foster a unified educational landscape, ensuring that students across different regions have access to a consistent curriculum. With the Single National Curriculum (SNC), which is now being revised, all children in Pakistan will have an equal and fair chance to get a high-quality education. The SNC is envisioned as a tool to promote educational equity and quality by establishing a common framework for curriculum development in Pakistan. It seeks to set uniform standards for what students across the nation should learn, emphasizing the importance of core subjects, critical thinking, and character building. However, the SNC is not an isolated element in the educational equation; it must be considered in conjunction with the textbooks that are used to deliver its content.

In Pakistan, textbooks are regarded as the foundation of the educational system. A textbook comprises content carrying material to mould and modify the ideologies, values and behaviours of learners. Textbooks serve as the primary medium through which the curriculum is transmitted to students, and their alignment with the curriculum is vital for the successful implementation of the SNC's objectives. According to Azevendo (1979), assessment and analysis provide instructors, administrators, and the educational department with useful information about the strengths and weaknesses of a textbook.

According to Hamza (2004), the main teaching, learning, and reference tool for language teaching in Pakistan is the textbook. The Khyber Pakhtunkhwa Textbook Board in Peshawar asserts that it has released textbooks with content that satisfies the requirements of Single National Curriculum (SNC). Checking whether texts are linked to the Single National Curriculum is therefore required. The alignment process is crucial because it draws attention to the needs and learning goals of the students. A theory or ideas must have been professed by educators, curriculum developers, and instructors in order to establish, carry out, and evaluate a school curriculum. The educational system and curriculum of a



Vol. 2 No. 5 (December) (2024)

nation can be influenced by its history. Textbook review is preliminary, maximising the positive aspects while balancing out or offsetting the negative aspects. (Ur,2006).

In the Process of Curriculum Development SNC from grade I to VIII for English, the collective experiences of English language curriculum developers and teachers point to the need for prioritising the development of the following competencies in learners: Oral Communication Skills (listening and speaking), Reading and Critical Thinking Skills, Writing Skills and Grammar. For developing the existing curriculum, the steps are: identifying and selecting competencies; developing learning standards; defining benchmarks at developmental levels; and developing student learning outcomes at each grade level. The five basic steps of textbook production include planning, material authoring, editing, reviewing, pilot testing, and revision planning. SNC 2022 for English is a comprehensive documents suggesting the student learning outcomes (SLOs) which are further divided in 4 competencies i.e competency (A) Oral Communication, competencies (B) Reading and Critical Thinking, competencies (C) Vocabulary & Grammar, competencies (D) Writing. The total number of SLOs in curriculum of English Grade 5 are 103. There are 13 SLOs in competency (A), 27 in competency (B) Reading and Critical Thinking, 41 in competency (C) Vocabulary & Grammar and 41 in competency (D) Writing respectively. The present study included textbook of English for grade 5, consists of units with SLOs with respect to competences like that of curriculum. There are 14 chapters, 109 SLOs with regard to competencies i.e competency (A) Oral Communication Skills have 30 number of SLOs, 51 SLOs in competencies (B) Reading and Critical Thinking, 89 SLOs in competencies (C) Vocabulary & Grammar and 21 SLOs in competencies (D) Writing respectively.

Various models of curriculum alignment have been proposed by different educationists, such as F. W. English's Curriculum Alignment Model, Leitzel and Vogler's Curriculum Alignment Model, Anderson's Model of Curriculum Alignment, the Achieve Model, and the Surveys of Enacted Curriculum [SEC] Model. In Pakistan, textbooks are regarded as the foundation of the educational system. As a result, it is now required to determine if textbooks are in line with the national curriculum. With the aforementioned in mind, the researcher plans to undertake a research study to ascertain how well the English SNC 2022 (language learning skills) adheres to the written curriculum (textbook) about SLOs with respect to competencies for grade 5 in KPK by using the Surveys of Enacted Curriculum [SEC] Model (Porter 2002).

Statement of the Problem

Curriculum alignment is the method of "Education quality control" (Rubin & Kazanjian, 2011). A number of studies have been done on the evaluation and analysis of English textbooks and their alignment with the curriculum in Pakistan, such as Ashraf, H. (2006), Ahmed, N., & Bukhari, A.T. (2011), Iqbal, J. (2013), etc. The most recent curriculum (SNC) 2022 with its salient feature of 'One Nation, One Curriculum' has been implemented in KP according to the given schedule and Khyber Pakhtunkhwa Textbook Board Peshawar has published all the textbooks from grade 1 to 5. It is the main responsibility of the Textbook Board to publish the textbooks fully aligned with the SNC 2022 to



Vol. 2 No. 5 (December) (2024)

achieve the objectives of Curriculum. It raises questions about whether the curriculum content prescribed by the SNC is faithfully reflected in the textbooks, and if so, to what extent.

However, no work has been done to analyse the alignment of SNC 2022 with the textbooks in Pakistan. So it is very important to analyse that up to what extent textbooks are aligned with its curriculum and the researcher is attracted to address this very important issue. Because of this, a study was conducted to examine how the English Single National Curriculum (SNC) 2022 and English textbooks produced by the Khyber Pakhtunkhwa Textbook Board in Peshawar compared in terms of SLOs for the competencies of Oral Communication (A), Reading and Critical Thinking (B), Vocabulary & Grammar(G), and Writing (D).

Objectives of the Study

The following were the objectives of this study:

1. Determine the chapter wise comparison between the No of SLO's of SNC 2022 and English Textbook for Grade 5 in relation to competencies; Oral Communication (A), Reading and Critical Thinking (B), Vocabulary & Grammar (C), and Writing (D).
2. Analyse the alignment between SNC 2022 and textbooks regarding English published by Khyber Pakhtunkhwa Textbook Board Peshawar for Grade 5 focused on the Specification of student Learning Objectives (SLOs) pertaining to competencies; Oral Communication (A), Reading and Critical Thinking (B), Vocabulary & Grammar (C), and Writing (D).

Research Questions

The objectives of this study were addressed by the following research questions

1. What are the chapter wise differences between the No. of SLOs of SNC 2022 and English Textbook for Grade 5 in relation to competences; Oral Communication (A), Reading and Critical Thinking (B), Vocabulary & Grammar (C), and Writing (D)?
2. Up to what extent does the SNC 2022 of English for Grade 5 align with the textbook of English published by Khyber Pakhtunkhwa Textbook Board Peshawar about SLOs with respect to overall competences: Oral Communication (A), Reading and Critical Thinking (B), Vocabulary & Grammar (C), and Writing (D)?

Research Methodology

The method and process used to carry out the study are covered in this part. It explains the design that was employed, how data was gathered using various tools, and how the tools were utilised to gather information.

Research design

A quantitative based document analysis was chosen in light of the study's objective. Quantitative data is gathered and analysed from the documents of SNC 2022 and Textbook of English Grade 5.

Data sources of the study

The data sources of study were.



Vol. 2 No. 5 (December) (2024)

- The document of SNC 2022 of English: The Ministry of Federal Education and Professional Training in Islamabad, Pakistan (<http://www.mofept.gov.pk>) developed for Grade 5
- English textbooks for Grade-5 published by the Khyber Pakhtunkhwa Textbook Board in Peshawar (KPTBP), which have been approved by Abbott Abad, the director of curriculum and teacher education in Khyber Pakhtunkhwa

Data Analysis Procedure:

Using Porter's (2002) alignment index formula, the quantitative measure of alignment was determined:

$$\text{The Alignment Index} = 1 - \frac{\sum |x-y|}{2}$$

In this case, x denotes value in one matrix (the curriculum), whereas y denotes value in another matrix (the text books). The subject, chapter and competences wise SEC protocol for curriculum and textbook was consisted of 14 rows for 14 chapters and 4 columns for 4 competencies of SLOs (Oral Communication, Reading & Critical thinking, Vocabulary & Grammar and Writing). In this way a matrix of 14x4 (56) was obtained for curriculum and same was 14x4 (56) for textbook. In this matrixes chapter wise ratio of each competency about SLOs was calculated individually for curriculum and textbook.

Then the absolute value of ratio difference was found by subtracting the values (ratio) of every cell of one matrix (for textbook) from corresponding cell of other matrix (for curriculum). Quantitative measure of alignment was calculated by using porters (2002) formula of alignment index.

This formula's implementation was done through the use of Microsoft Excel. Furthermore, Fulmer's (2011) table of crucial values was used to determine the alignment's strength. A chapter wise quantitative comparison and contrast of the book's content and curriculum for each competency were shown in form of tables and graph.

Scale and Values Used for Alignment Index:

The following values of alignment index were used to determine the level of alignment between SNC and Textbook as suggested by (Fonthal, 2004; Fulmer, 2011; Ndlovu & Mji, 2012).

WEIGHT	SCALE	RANGE
1	Good aligned	0.91-1.00
2	Significantly aligned	0.81-0.90
3	Considerably aligned	0.71-0.80
4	Considerably misaligned	0.61-0.70
5	Significantly misaligned	0.51-0.60



Vol. 2 No. 5 (December) (2024)

6

Critically misaligned

≤ 0.50

Research Questions Wise Analysis and Interpretation of Data

Research Question wise analysis of data and its interpretation is given as follows:

Research Question 1: What are the chapter wise differences between the No of SLOs of SNC 2022 and English Textbook for Grade 5 in relation to competences; Oral Communication (A), Reading and Critical Thinking (B), Vocabulary & Grammar (C), and Writing (D)?

Table 1: Chapter wise differences b/w the No. of SLOs of SNC 2022 and English Textbook with respect to Competencies

Chapter No.	Competency (A) Oral Communication		Competency (B) Reading & Critical Thinking		Competency (C) Vocabulary & Grammar		Competency (D) Writing	
	No of SLO's		No of SLO's		No of SLO's		No of SLO's	
	SNC	Textbook	SNC	Textbook	SNC	Textbook	SNC	Textbook
1	2	2	4	5	4	6	3	3
2	2	2	2	3	2	7	1	2
3	1	2	0	4	1	5	2	1
4	0	2	0	3	3	5	3	1
5	0	1	4	4	4	5	3	2
6	2	3	3	4	3	5	2	1
7	2	2	3	4	0	6	0	2
8	1	2	0	3	1	6	0	1
9	2	2	3	5	1	8	1	2
10	0	2	0	3	5	8	0	1
11	2	2	2	3	6	7	0	1
12	0	2	1	4	7	8	2	1
13	0	2	0	2	2	7	2	1
14	0	4	5	4	2	6	3	2
Total	14	30	27	51	41	89	22	21

Table 1 shows a chapter-by-chapter comparison of the English-5 textbook's No of



Vol. 2 No. 5 (December) (2024)

SLOs with the curriculum. As relating to competency Oral Communication skill (A), The total of SLO's in curriculum are 14 while in Textbook the No of SLOs are 30. The figure makes clear that, except for chapters 1, 2, 7, 9, and 11, the textbook contains more content regarding learning in relation to oral communication competence (A) than the curriculum does. This variation is greatest in chapters 6 & 14

Relating to the competency Reading & Critical Thinking (B) the total No. of SLOs in curriculum and textbook are 27 and 51 respectively, the table makes it clear that, with the exception of chapters 5 and 14, the textbook contains more information regarding learning outcomes related to reading and critical thinking (B) than the curriculum does. In Chapter 5, the textbook provides an equal amount of content to that in the curriculum. In Chapter 14, the curriculum provides more content about SLOs relating to Reading & Critical thinking (B) with respect to the textbook.

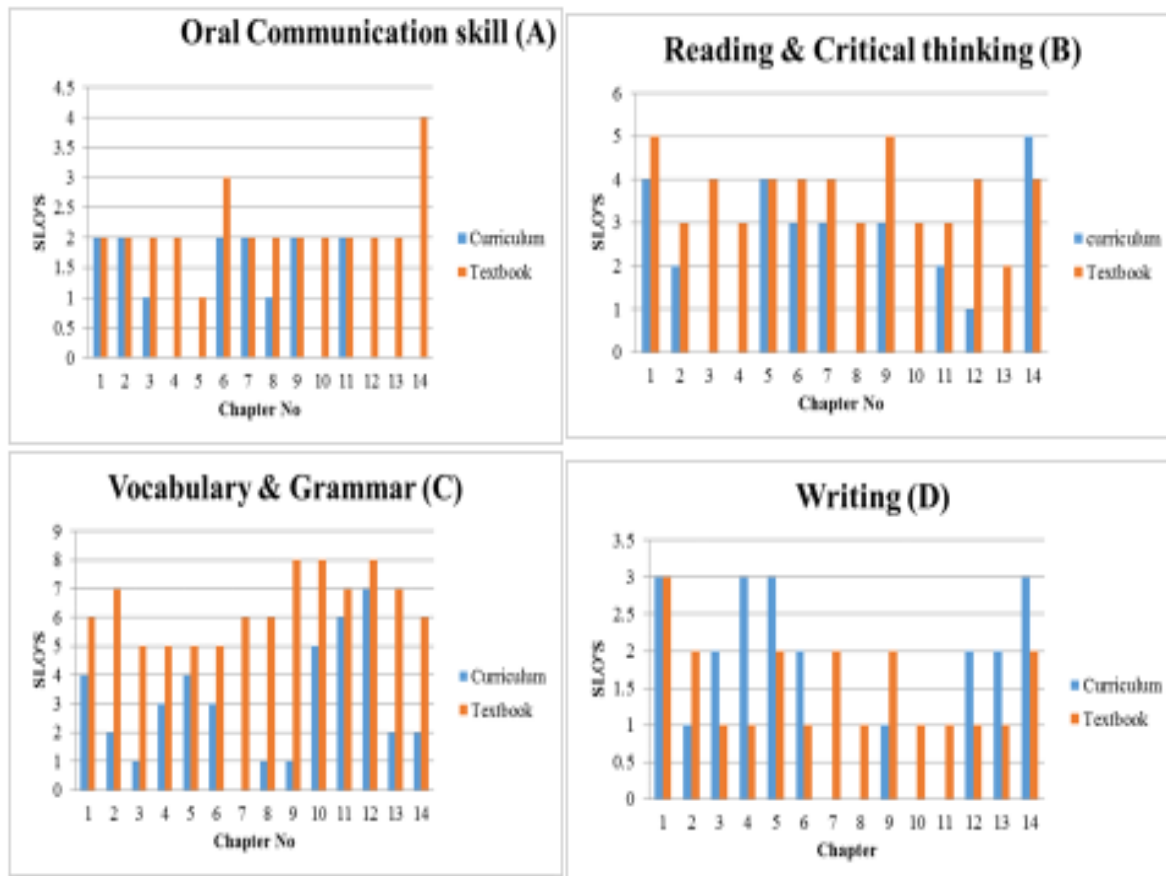
The Chapter-by-chapter comparison between the NO of SLOs of English-5 textbook (with total No of SLOs 89) and the curriculum (with total No of SLOs 41) relating to the competency: Vocabulary and Grammar (C). The table makes it clear that, as compared to the curriculum, the textbook provides greater content concerning learning outcomes related to vocabulary and grammar (C) in every chapter. With regard to the competency Writing (D), the table makes it clear that the total No of SLOs in curriculum and textbook are 22 and 21 respectively. In comparison to the curriculum, the textbook provides more information concerning learning outcomes related to writing (D) in chapters 2, 7, 8, 9, 10, and 11. In comparison to the textbook, the curriculum has additional information regarding SLOs related to the competency of writing (D) in chapters 3, 4, 5, 6, 12, 13, and 14.



Vol. 2 No. 5 (December) (2024)

A graphic representation of data is also given in the following figure 4.1

Figure “Chapter-wise” comparison between number of SLOs in “SNC” and “Textbook” for each Competences of Grade 5





Vol. 2 No. 5 (December) (2024)

Research Question 2: Up to what extent does the SNC 2022 of English for Grade 5 align with the textbook of English published by Khyber Pakhtunkhwa Textbook Board Peshawar about SLOs with respect to overall competences: Oral Communication (A), Reading and Critical Thinking (B), Vocabulary & Grammar (C), and Writing (D)?

Table 2: Ratio differences b/w Curriculum (SNC) & Textbooks SLOs with respect to Competencies for Grade 5 in the Subject of English

Chapter No.	COMPETENCES			
	Oral Communication (A)	Reading & Critical thinking (B)	Vocabulary & Grammar (C)	Writing (D)
1	0.01	0.05	0.03	0.01
2	0.09	0.02	0.03	0.05
3	0.01	0.07	0.03	0.05
4	0.06	0.05	0.02	0.09
5	0.03	0.07	0.04	0.04
6	0.05	0.04	0.02	0.05
7	0.09	0.04	0.06	0.09
8	0.01	0.05	0.04	0.04
9	0.09	0.02	0.06	0.05
10	0.06	0.05	0.04	0.04
11	0.09	0.02	0.07	0.04
12	0.06	0.04	0.09	0.05
13	0.06	0.03	0.03	0.05
14	0.13	0.11	0.02	0.04
Total $\sum X-Y $	0.84	0.66	0.58	0.69
$A1 = \sum X-Y /2$	0.58	0.67	0.71	0.65
Results	Significant Misalignment	Considerable Misalignment	Considerable Alignment	Considerable Misalignment
(AAI)	0.65	(Considerable Misalignment)		

$$\begin{aligned} \text{Average Alignment Index (AAI)} &= \sum \text{Alignment Index} / \text{total No of competences} \\ &= 0.58 + 0.67 + 0.71 + 0.65 / 4 \\ &= 2.6 / 4 = 0.65 \text{ (Considerable Misalignment)} \end{aligned}$$

The alignment of the English-5 textbook with the curriculum is shown in the above table 2. It is obvious that the average alignment index value is 0.65, which indicates considerable misalignment of the English-5 textbook with the curriculum. Except for competency C (Vocabulary & Grammar), which is significantly aligned with the curriculum, the content of the book is likewise separately misaligned with respect to all competences of SLOs. The calculated values for each SLO's competencies: oral communication, reading and critical thinking, vocabulary and grammar, and writing are 0.58, 0.67, 0.71, and 0.65 correspondingly. When relating the various SLOs' competencies, the

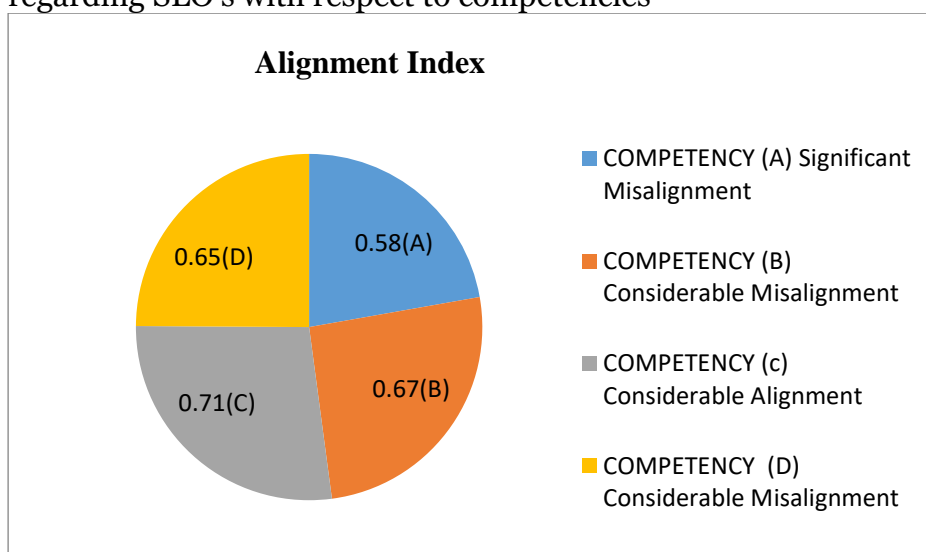


Vol. 2 No. 5 (December) (2024)

misalignment is not the same. The content of the book is Significantly Misaligned (AI = 0.58) with the curriculum for competency oral Communication Skills (A) and Considerably Misaligned (AI = 0.67) with the curriculum for competency Reading and Critical Thinking (B). In competency Vocabulary & Grammar (C), the content of the book is Considerably Aligned (AI = 0.71) with the curriculum. The curriculum and the content of the book for the competency of Writing (D) is Considerably Misaligned (AI = 0.65).

A graphic representation of data is also given in the following figure 4.2

Figure 4.2: The Alignment Index (AI) of English-5 Curriculum (SNC) & Textbook regarding SLO's with respect to competencies



Results and Discussion

After performing a content study of the curriculum and textbook with respect to competencies about SLOs, it was possible to determine the degree of alignment using quantitative analysis. The chapter wise comparison between the English-5 curriculum and textbook reveals disparities in the number of Student Learning Outcomes (SLOs) across competencies. Notably, for Oral Communication skill (A), the textbook consistently surpasses the curriculum in SLOs, except in chapters 1, 2, 7, 9, and 11, with the greatest variation in chapters 6 and 14. In Reading & Critical Thinking (B), the textbook generally outnumbers the curriculum in SLOs, except in chapters 5 and 14, where they are equal and the curriculum surpasses the textbook, respectively. For Vocabulary and Grammar (C), the textbook consistently exceeds the curriculum in SLOs across all chapters. Regarding Writing (D), the textbook provides more SLO information in specific chapters compared to the curriculum, while the curriculum includes additional information in other chapters. Overall, the analysis indicates varying degrees of alignment and misalignment between the English-5 textbook and curriculum across different competencies.

The overall alignment assessment (AAI = 0.65) indicates a significant misalignment between the English-5 textbook's content and the curriculum. This misalignment is not consistent across all Student Learning Outcomes (SLOs) competencies. Notably, competency C (Vocabulary & Grammar) demonstrates



Vol. 2 No. 5 (December) (2024)

considerable alignment ($AI = 0.71$) with the curriculum. However, for competencies A (Oral Communication), B (Reading & Critical thinking), and D (Writing), the textbook content is considerably misaligned, with AI values of 0.58, 0.67, and 0.65, respectively. The variations in misalignment emphasize that the level of agreement between the textbook and curriculum differs across the various SLOs' competencies.

Overall, the study's findings indicate that Khyber Pakhtunkhwa schools' usage of English textbooks for grade 5 does not fully align with the goals established by the National Curriculum Wing. The degree of curriculum alignment varies, and there is a clash between texts and instruction. Textbook is not written particularly to align with SLOs specified in the curriculum. This result is consistent with other studies, such as those by Akhtar (2004), Rehman (2004), Faize (2011) and Husain (2012) which demonstrated that Pakistani textbooks include irrelevant material that does not guarantee the achievement of the curriculum's intended aims. The current study demonstrates that, in comparison to the curriculum, the competences A, B, and C in the English-5 textbook were the only ones where the information was overloaded. In comparison to a textbook, the curriculum contains additional information regarding SLOs related to the competency Writing (D). Moreover, findings from international studies in Sub-Saharan African countries (Chudgar & Luschei, 2009), Indonesia (Miedema, 2012), Malaysia (Arshad & Shariff, 2016), and Turkey (Sahin & Yorek, 2017) further reinforce the issue of misalignment between textbooks and curriculum in various educational settings. The lack of collaboration between curriculum designers and textbook authors appears to be a significant contributing factor to this misalignment. Addressing this issue is crucial for improving the quality of education and ensuring that textbooks effectively support the achievement of the intended learning outcomes.

Conclusions

Based on the findings and discussions presented, several conclusions can be drawn regarding the alignment between the English-5 curriculum and textbook across different competencies. The chapter-wise comparison reveals a varying degree of alignment between the English-5 textbook and curriculum across competencies, emphasizing that the congruence is not uniform. This variability is evident in competencies such as Oral Communication (A), Reading & Critical Thinking (B), Vocabulary & Grammar (C), and Writing (D). Despite competency C (Vocabulary & Grammar) showing considerable alignment, the overall analysis suggests a consistent misalignment between the English-5 textbook's content and the curriculum. This misalignment is particularly pronounced in competencies A (Oral Communication) and B (Reading & Critical Thinking), indicating potential areas for improvement in content alignment. The study underscores the discipline-specific nature of textbook-curriculum relationships, echoing the findings of similar research in other educational contexts. The disparities observed may be influenced by the unique requirements and objectives of language arts education compared to other disciplines.

The overall misalignment ($AAI = 0.65$) highlights the importance of revisiting and revising the English-5 textbook to enhance its alignment with the curriculum. Targeted interventions should be considered to address specific



Vol. 2 No. 5 (December) (2024)

competencies, particularly A (Oral Communication) and B (Reading & Critical Thinking), where the misalignment is considerable. Educators and curriculum developers should be aware of the varying degrees of alignment and misalignment in textbooks, considering the impact on students' learning experiences. This study encourages ongoing assessment and adjustment of instructional materials to better meet the intended learning outcomes.

In conclusion, the study provides valuable insights into the alignment challenges between the English-5 curriculum and textbook, emphasizing the need for nuanced interventions and continuous improvement to enhance the effectiveness of language arts education.

Recommendations

To guarantee that the national curriculum and textbooks are in line, the report recommends that curriculum and textbook developers receive proper training. Multiple learning trajectories may be included in the curriculum when it is created or when a substantial adjustment is made at any level. The learning path leading to the anticipated results may be discussed. Regarding accuracy of information and relevance to curricular goals, textbook content may be consistent with the curriculum. The curriculum's guidelines, however, may be followed by the textbook authors. Since the national curriculum document is exclusively given to textbook writers in Pakistan's public sector for guidance, teachers there have very little access to it (Bano, 2005). To ensure that the textbook accurately reflects all of the curriculum's aims and all of the qualities suggested in the curriculum document, it is essential that the textbook's authors take on an additional duty.

The lack of collaboration between curriculum designers and textbook authors is seen in the discrepancy between the textbook and the curriculum. The national curriculum's criteria for textbook development should be followed by textbook authors. The creation and publication of textbooks may follow the right procedures to ensure that the information contained in them is accurate, true, faultless, and conceptually consistent with the curriculum's suggested objectives. To improve the alignment between curriculum and textbook, there may be at least one common person involved in curriculum creation and textbook authoring.

References

- Ahmad, N., Ahmed, S., Bukhari, M. A., & Bukhari, T. A. (2011). The nature of difficulties in learning English by the students at secondary school level in Pakistan. *Journal of Education and Practice*.
- Alam, M. (2016). Use of ICT in higher education. *The International Journal of Indian Psychology*.
- Akhtar, M. (2004). Analysis of curriculum process and development of a model for secondary level in Pakistan (Unpublished doctoral dissertation). University of Arid Agriculture Rawalpindi.
- Ali, S., Ahmad, N., Manzoor, N., & Naseer, S. (2014). Students' Perceptions about Teaching English as Compulsory Subject at Secondary Level in Punjab, Pakistan. *Bulletin of Business and Economics (BBE)*.
- Allington, R. L. (2002). You can't learn much from books you can't



Vol. 2 No. 5 (December) (2024)

- read. *Educational leadership*.
- Anderson, L. W. (2002). Curricular alignment: A re-examination. *Theory into practice*.
- Arshad, M., & Shariff, S. M. (2016). Evaluating the Alignment between Secondary School English Language Curriculum and Textbooks in Malaysia. *Journal of Language and Linguistic Studies*.
- Ashraf, H. (2006). *A study of English language learning as an element affecting the social capital of the people of Pakistan* (Doctoral dissertation, NATIONAL UNIVERSITY OF MODERN LANGUAGES ISLAMABAD)
- Berliner, D. C. (1984). The half-full glass: A review of research on teaching.
- Bhate, K. (2021). *Information and Communication Technology in Higher Education* (Doctoral dissertation, Maharaja Sayajirao University of Baroda (India)).
- Bobbitt, F. (1918). *Bobbitt, Franklin, The Curriculum*. Boston: Houghton Mifflin Co., 1918.
- Çepni, S., & Kara, Y. (2011). Aligning large-scale examinations to the curriculum guidelines: student selection examination and Turkish biology curriculum. *Procedia-Social and Behavioral Science*.
- Neil, J. D. (2006). *Contemporary curriculum in thought and action* (6th Ed.). Hoboken, NJ: John Wiley & Sons, Inc.
- Chudgar, A., & Luschei, T. F. (2009). Textbooks and the Achievement Gap: Evidence from Sub-Saharan Africa. *Comparative Education Review*.
- English, F. W. (2000). *Deciding what to teach and test: Developing, aligning, and auditing the curriculum*. Corwin Press.
- Faize, F. A. (2011). Problems and prospects of science education at secondary level in Pakistan (Unpublished doctoral dissertation). Faculty of Social Sciences, International Islamic University, Islamabad.
- Frommberger, D., & Krichewsky, L. (2012). Comparative analysis of VET curricula in Europe. In *The future of Vocational Education and Training in a changing world*.
- Fulmer, G. W. (2011). Estimating critical values for strength of alignment among curriculum, assessments, and instruction. *Journal of Educational and Behavioral Statistics*,
- Glatthorn, A. A., Boschee, F., & Whitehead, B. M. (2005). *Curriculum Leadership: Development and Implementation*. SAGE Publications. 2455 Teller Road, Thousand Oaks, CA.
- Gordon, C. W. (1957). *The social system of the high school*. The free press.
- Hume, A., & Coll, R. (2010). Authentic student inquiry: The mismatch between the intended curriculum and the student-experienced curriculum. *Research in Science & Technological Education*
- Iqbal, J. (2013). A review of English textbook at secondary level in the province of Khyber Pakhtunkhwa, Pakistan. *Research Journal of Educational Sciences*
- Jacobs, H. H. (2004). *Getting Results with Curriculum Mapping*. Association for Supervision and Curriculum Development (ASCD), 1703 North Beauregard Street, Alexandria
- Kelly, A. (2004). Design research in education: Yes, but is it methodological? *The journal of the learning sciences*



Vol. 2 No. 5 (December) (2024)

- Kucker, M. (2000). Tech Prep. South Dakota Career Activities for the Classroom.
- Kuhn, K. A., & Rundle-Thiele, S. (2009). Curriculum alignment: Student perception of learning achievement measures. *International Journal of Teaching and Learning in Higher Education*.
- Kurz, A., Elliott, S. N., Wehby, J. H., & Smithson, J. L. (2010). Alignment of the intended, planned, and enacted curriculum in general and special education and its relation to student achievement. *The journal of special education*.
- Lam, B. H., & Tsui, K. T. (2013). Examining the alignment of subject learning outcomes and course curricula through curriculum mapping. *Australian Journal of Teacher Education*
<http://www.eric.ed.gov/PDFS/ED371812.pdf>
- Liu, X., & Fulmer, G. (2008). Alignment between the science curriculum and assessment in selected NY state regents exams. *Journal of Science Education and Technology*.
- Martone, A., & Sireci, S. G. (2009). Evaluating alignment between curriculum, assessment, and instruction. *Review of educational research*.
- Polikoff, M. S. (2012). Instructional alignment under no child left behind. *American Journal of Education*
<http://www.jstor.org/stable/10.1086/664773>
- Porter, A. C. (2002). Measuring the content of instruction: Uses in research and practice. *Educational research*. <http://seconline.wceruw.org/Reference/Porter-InstrContent-AERA02.pdf>.
- Rehman, F. (2004). Analysis of National science curriculum (chemistry) at secondary level in Pakistan. University of Arid Agriculture, Rawalpindi.
- Rubin, D., & Kazanjian, C. (2011). "Just another brick in the wall": Standardization and the devaluing of education. *Journal of Curriculum and Instruction*.
- Saglam, H. I. (2011). An Investigation on Teaching Materials Used in Social Studies Lesson. *Turkish Online Journal of Educational Technology-TOJET* <http://www.eric.ed.gov/PDFS/EJ926552.pdf>
- Sahin, A., & Yorek, N. (2017). An Investigation of the Alignment between Turkish Language and Literature Textbooks and Curriculum Objectives. Hacettepe University Journal of Education.
- Triche, Stephen Shepard. *Reconceiving curriculum: An historical approach*. Louisiana State University and Agricultural & Mechanical College, 2002
- Woolard, J. C. (2007). Measuring systemic alignment of a state's instruction, standards, and assessments: A baseline analysis. In *Annual Meeting of the American Educational Research Association, Chicago, IL*.
<http://programs.ccsso.org/content/pdfs/woolard%2007%20AERA.doc>