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THE IMPACT OF STUDENTS SATISFACTION TOWARD SINGLE NATIONAL CURRICULUM CHANGE IN PAKISTAN: PEDAGOGICAL KNOWLEDGE AS MEDIATOR

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Abstract

The present study focuses on the relationship between single national curriculums (SNC), student satisfaction (SS), and pedagogical knowledge (PK). The article explores the goals of the national curriculum from the perspective of students. It delves into their perceptions of these goals and the challenges they face in realizing them. Data were collected from 776 matric students in different cities in Pakistan. Results of AMOS-SEM demonstrated that SNC is significant predictor of SS and PE as mediator between SNC and SS. These findings provide deeper understanding of student thinking of SNC and their satisfaction and emphasize need to assimilate pedagogical knowledge enhancement for curriculum.

Keywords: *New Curriculum, Change Perception, Student Satisfaction, Pedagogical Knowledge*

Introduction

Knowledge has grown exponentially in the twenty-first century (Copur-Gencturk & Tolar, 2022). The role of student education may embrace and hold new curriculum changes, as it is hard to grow and convey new curriculum changes for growth and innovation. Researches notice new curriculum changes are crucial but ensure students understanding and satisfaction are significant for learning outcomes (Malik et al., 2019). These updated curriculums are mostly need further enhancement and must be enriched for students to learn effectively. It has been argued that concern curriculum changes do not adequately ensure successful outcomes (Gul & Khilji, 2021).

In the gigantic race between different higher education institute (HEIs) institutes should remain provide new competitive and provide attractive course curriculum. This can be achieved just by maintaining high-class curriculum and continuously improves through developed into profession and community requirement (Sullanmaa et al., 2021). Higher education students place their idea on education changes curriculum, and address any fear that will resist to develop an opportunity that always grow them (Shahjahan et al., 2022). Change curriculum plays diverse impact sometimes on educational advancement, and enhancing student development (Hendriyani et al., 2023). Change curriculum plays a diverse impact sometimes on educational advancement and enhancing student development. By incorporating new and relevant subjects into the course curriculum, higher education institutions can ensure that students are equipped with the skills and knowledge required by the evolving job market. This not only attracts more students to enroll in these institutions but also provides them with the opportunity to grow and succeed in their chosen professions and contribute to the community.

High quality curriculum change can increase student satisfaction, leading students to clarify their future objectives and goals. Hendriyani et al. (2023) new course curriculum must relevant to competitive market; ensure credibility in promoting successful students. Further, an updated curriculum that focuses on practical skills and pedagogical knowledge incorporating subjects that contributes to financial stability (Öztürk,et al., 2023). Ultimately, providing more positive ripple effect on entire education ecosystem, clarify workforce skills and learning as potential driver of economic growth as well (). As the demand of higher education increases the need of new updated curriculum enhances, similarly students evaluated curriculum through different satisfaction level. This motivate researcher to judge student curriculum changes perception to meet and exceed students satisfaction. As such, researcher has been universally adopted in higher education institutes (especially class 12 students) to examine satisfaction level and overall curriculum change perception. The study also judges pedagogical knowledge mediating impact concerning course curriculum change perception and different student satisfaction level.

Literature Review

Course Curriculum Changes Perception & Student Satisfaction

Student Course curriculum changes perception has negatively impact on student satisfaction in various ways (Ligori et al., 2022). One of the main effects is a decline in academic performance and motivation. With the introduction of new curriculum changes, students may struggle to adapt and keep up with the increased workload or unfamiliar teaching methods. This can lead to a decrease in their overall academic performance, as well as a loss of motivation to excel in their studies. Additionally, the stress levels and anxiety among students tend to increase as they navigate through the uncertainties and challenges posed by the revised curriculum (Gul & Khilji, 2021). The pressure to meet new expectations and perform well can take a toll on their mental well-being, affecting their overall satisfaction with their educational experience. Furthermore, the lack of support and resources available to students during these transitional periods can exacerbate these issues. Without proper guidance and assistance, students may feel overwhelmed and discouraged, further hindering their ability to succeed academically. It is crucial for educational institutions to recognize and address these challenges, providing students with the necessary support and resources to thrive in the face of curriculum changes. By implementing mentorship programs or academic counseling services, educational institutions can offer students the guidance they need to navigate these transitional periods successfully. Additionally, providing students with access to resources such as tutoring or study groups can help alleviate the stress and pressure associated with curriculum changes. By investing in these support systems, educational institutions can ensure that students are equipped to overcome the challenges they may face and ultimately achieve academic success. These support systems can also play a crucial role in promoting students' mental health and well-being. By offering counseling services, educational institutions can address issues such as anxiety, depression, and stress, which are often heightened during transitional periods. This holistic approach to education not only focuses on academic success but also prioritizes the overall well-being of students, creating a conducive and supportive learning environment (). Ultimately, by providing the necessary guidance, resources, and support, educational institutions can empower students to course curriculum satisfaction (Ligori et al., 2022). Hence, proposed that

Hypothesis 1: Student Course Curriculum Changes Perception Has Positively Impact on Student Satisfaction

Course Curriculum Changes Perception & Pedagogical Knowledge

Course curriculum changes are expected to enhance education and provide pedagogical knowledge (Sebsibe et al., 2023). Pedagogical knowledge can develop for student and so they can spend more knowledge on high value curriculum development, designing teaching materials. As Shahjahan et al. (2022) note, that HEI could invest more in course curriculum change, and guidance through faculty. In most instances, however, CCP changes perceptions improve instruction and guidance. As further expected development of course curriculum is to enable teaching and can allow better student engagement, through pedagogical knowledge (Yılmaz & Yılmaz, 2023). Course curriculum changes are expected to enhance education and provide pedagogical knowledge (Salendab, 2023). Pedagogical knowledge can develop for student and so they can spend more knowledge on high value curriculum development, designing teaching materials. As Sebsibe et al. (2023) note, that HEI could invest more in course curriculum change, and guidance through faculty. In most instances, however, CCP changes perceptions improve instruction and guidance. As further expected development of course curriculum is to enable teaching and can allow better student engagement, through pedagogical knowledge. Pedagogical knowledge can develop for students by providing them with opportunities to engage in high-value curriculum development and design teaching materials. As a result, HEIs could invest more in course curriculum change and provide guidance to faculty members. In most instances, the changes in course curriculum and the improved instruction and guidance that result from it led to positive perceptions. Furthermore, the expected development of course curriculum aims to enhance teaching and enable better student engagement through the application of pedagogical knowledge. This can be achieved by incorporating innovative teaching methods, such as project-based learning or flipped classrooms, into the curriculum (Gul & Khilji, 2021). Additionally, the development of course curriculum can also involve the integration of technology tools and resources, which can further enhance student learning experiences. Overall, the continuous improvement of course curriculum not only benefits students but also contributes to the overall development and growth of higher education institutions. Hence, proposed that

Hypothesis 2: Course Curriculum Changes Perception Has Positively Impact on Pedagogical Knowledge

Pedagogical Knowledge & Student Satisfaction

Pedagogical knowledge has positively impact on student satisfaction and academic achievement (Garnjost & Lawter, 2019). This hypothesis is based on the understanding that pedagogical knowledge encompasses the expertise and skills required by educators to effectively deliver instruction and support student learning. Numerous studies have shown a strong correlation between teachers' pedagogical knowledge and students' satisfaction with their learning experiences (Huang et al., 2022; Öztürk,et al., 2023). Additionally, research has demonstrated that students who are taught by educators with high levels of pedagogical knowledge tend to achieve higher academic outcomes compared to those taught by less knowledgeable students (Gul & Khilji, 2021). Therefore, this research paper aims to explore the extent to which pedagogical knowledge influences student satisfaction and academic achievement. By examining different theoretical perspectives on pedagogical knowledge and its impact on student satisfaction and academic achievement, this study seeks to provide a comprehensive understanding of the relationship between the two variables. Furthermore, the paper will investigate the specific pedagogical strategies and approaches that contribute to higher levels of student satisfaction and academic success. This research is expected to contribute to the existing body of knowledge on effective teaching practices and inform educational policies and practices for improving students' learning experiences and outcomes (Yılmaz & Yılmaz, 2023). In addition, the study aims to explore the potential impact of student satisfaction on long-term academic outcomes, such as graduation rates and post-graduate employment. By examining the underlying factors that drive student satisfaction and academic success, this research can help educators identify areas for improvement and implement evidence-based interventions. Ultimately, the findings from this study have the potential to enhance educational practices and ultimately contribute to the development of well-rounded, successful individuals in society. Furthermore, understanding the relationship between student satisfaction and academic outcomes can also inform policy decisions regarding resource allocation and curriculum development (Khan et al., 2022). For instance, if the research finds that certain extracurricular activities or support services significantly contribute to student satisfaction

and success; educational institutions can prioritize funding and expanding these programs. Additionally, the study's results can guide educators in creating a more supportive and inclusive learning environment, fostering a sense of belonging and motivation among students. Overall, this research has the potential to positively impact the overall educational experience and pave the way for better opportunities and outcomes for students. Hence, proposed that

Hypothesis 3: Pedagogical Knowledge Has Positively Impact on Student Satisfaction

Pedagogical Knowledge, Course Curriculum Change Perception, Student Satisfaction

To further explore the impact of pedagogical knowledge mediation on course curriculum change perception and student satisfaction, additional research is needed (Pandita & Kiran, 2023). This hypothesis suggests that the way in which teachers facilitate the transfer of pedagogical knowledge to students can influence their perception of curriculum changes and ultimately their satisfaction with the course. By examining this relationship, educators can gain valuable insights into the effectiveness of their teaching methods and make informed decisions about instructional strategies. This research can also help identify areas for improvement in pedagogical practices and guide the development of professional development programs for students (Huang et al., 2022). Ultimately, by understanding the role of pedagogical knowledge and its impact on curriculum changes and student satisfaction, educators can work towards creating a more engaging and effective learning environment. This knowledge can empower teachers to adapt their teaching techniques to better meet the needs of their students and enhance their overall educational experience. Furthermore, it allows for continuous growth and improvement in the field of education, ensuring that educators are equipped with the necessary skills and knowledge to effectively educate and inspire their students. By understanding the factors that contribute to student engagement and satisfaction, educators can implement strategies and resources that promote active learning and student involvement (Wang et al., 2022). This may include incorporating technology into the classroom, encouraging collaborative activities, and providing personalized feedback. As a result, students are more likely to be motivated and invested in their education, leading to improved academic performance and a positive school environment. Ultimately, this ongoing pursuit of knowledge and improvement benefits both students and educators, fostering a lifelong love of learning and a desire to excel in the field of education.

Furthermore, incorporating technology into the classroom not only enhances the learning experience but also prepares students for the digital world they will enter as they progress in their education and careers. Collaborative activities encourage students to work together, fostering important skills such as communication, problem-solving, and teamwork. The provision of personalized feedback allows educators to address individual needs and help students reach their full potential. By prioritizing student involvement, schools can create a positive and supportive environment that nurtures a lifelong love of learning and encourages students to excel academically. Hence proposed that.

Pedagogical Knowledge Mediation Impact on Course Curriculum Change Perception and Student Satisfaction

Research Methods

Participants

This study was conducted with students taking matriculation in different school. Different school (such as, private or public) are selected from Karachi, Lahore, Islamabad, Peshawar. As at other matriculation schools in Pakistan are an important milestone for students, and they are obtained high grades to serve as basis for further education. The school is a teaching foundation with fundamentally no research culture. In the absence of a local ethics committee, approval was obtained from the school principal or senior headmaster. The survey was administered to students in two or three months in the context of regular classes. 776 students present at that time to participate in survey. They include 424 man and 352 women, and age between 15 and 18 years (M=16.5 years). However, some students missed some items and only 734 provided complete information on survey questionnaire.

Measurement Scale

Student satisfaction was operationalized based on dimension, such as course content derived from (Ligori et al., 2022) which included ten components. Respondents were asked to rate the level of curricular course material in their institutions on a five-point scale (ranging from 1 to 5, with 1 indicating strongly disagree and 5 indicating strongly agree).

The Curriculum Changes Perception Scale was developed using eight items suggested by (Hidayah et al., 2022). Respondents were asked to rate their impressions of the curriculum on a five-point scale (ranging from 1 to 5, with 1 indicating strongly agree and 5 indicating strongly

Twelve items of pedagogical knowledge were representing PK, measured by (Große-Heilmann et al., 2022) was utilize in current research. A pilot test was carried out to develop the questionnaire, and the instrument's reliability was validated using Cronbach's alpha. Cronbach's alpha values for course material were 0.938 and 0.847 (changing perception). The pilot test results verified that the subjects understood the instruments adequately.

Factor Analysis

The measuring model's suitability was assessed by checking for construct reliability, construct convergent validity, and construct discriminant validity. Cronbach's alpha (Alpha) and composite reliability (CR) were used to determine construct dependability. The inter item consistency is demonstrated since the CR values for all constructions are more than 0.7, as shown in Table 2. To establish convergent validity, the items must have factor loading of 0.7 or higher (Baleghi-Zadeh et al., 2014), while construct must measure at least 50% variance, i.e., the average variance extracted (AVE) for each of the constructs must be at least 0.5 (Baleghi-Zadeh et al., 2014; Khan et al., 2022). As shown in Table 2, the minimum loading for each build is greater than 0.7 and the AVE for each construct is greater than 0.5. The discriminant validity implies that the model's constructs are distinct from one another. Thus, HTMT ration is smaller than 0.9, the discriminant validity is demonstrated (Henseler et al., 2015). As demonstrated in Table 2, all constructs had HTMT ratios smaller than 0.9, indicating discriminant validity. The empirical results suggest that the measurement model is adequate for measuring the constructs employed in the model.

Results

Confirmatory Factor Analysis and Descriptive Analysis

The confirmatory factor analyses conducted in AMOS 28.0 provided support for the measurement model of the study variables, indicating ten items measuring content satisfaction,

eight items measuring Curriculum Changes Perception, and twelve items measuring pedagogical knowledge were appropriate measures for the study. The fit statistics, including a chi-square value of 435.87 ($p < 0.001$), a Comparative Fit Index (CFI) of 0.91, a Tucker-Lewis Index (TLI) of 0.90, and a Root Mean Square Error of Approximation (RMSEA) of 0.07, indicated a good fit between the model and the data. These findings suggest that the measurement model accurately captures the constructs being studied.

Table 1 Mean, S.D, & Correlation

	Mean	Std. Deviation	CC	PK	SS
CC	2.9329	.96003	(.76)		
PK	3.3627	.65357	.225**	(.86)	
SS	3.3674	.65427	.266**	.54**	(.83)

Table 2 Factor loading, CR and AVE

Construct	items	Factor loadings	α	CR	AVE
1.Curriculum changes (CC)	CC1-CC8	.74-.82	.76	.93	.60
2.Student satisfaction (SS)	SS-1-SS-10	.76-.88	.86	.94	.65
3.Pedagogical knowledge	PK-1-Pk12	.71-.89	.83	.93	.62

Table. 3 Step1-Model Fit

ITEMS	CMIN/DF	TLI	CFI	RMSEA
1.Curriculum changes (CC)	1.6	.91	.91	.04
2.Student satisfaction (SS)	2.85	.89	.89	.07
3.Pedagogical knowledge (PK)	2.76	.93	.92	.08
Model fit index	1.87	.74	.86	.07
Note: Cmin/Df= chi-square/ degrees of freedom; RMSEA= root mean square error of Approximation, TLI= Tucker–Lewis Index; CFI= comparative fit index				

Note: α = Cronbach's alpha; Factor loading= FL; CR = composite reliability; AVE = average variance extracted

Table.4 Hypothesis Testing

	Path	Estimate	t	significant	Results
Hypothesis1	CC-SS	.391	3.64	satisfied	
Hypothesis2	SS-PK	.87	23.436	satisfied	
Hypothesis3	CC-PK	.153	3.05	satisfied	
Hypothesis4	SS-PK-CC	.19	--	satisfied	

Notes: CC-Curriculum Changes, SS-Student Satisfaction, at *p<0.05; ***p <0.001

Result and Discussion

The basic question addressed here is "What will single curriculum change perceptions influence on students' satisfaction? The goals in developing highly advanced single curriculum development across curriculum program is to provide more opportunity for every higher secondary class 11-12 students to engage and learn more, both within their academic career and more importantly, in an interdisciplinary manner often more productive and reflective. In line with goals, results of the present study provide distinctive patterns of relationships between school course curriculum change perception, student satisfaction, and pedagogical knowledge. Additionally,

Pedagogical knowledge was found to mediate the relationship between CCP and SS. Regarding our first hypothesis, findings indicate a strong positive relationship between CCP and SS. This empirical result is consistent with recent empirical studies conducted in the business sector indicating that school course curriculum change perception constitutes a valid construct for the prediction of student satisfaction, (Pandita & Kiran, 2023). Furthermore, institutes that prioritized their education though improve change curriculum increased student satisfaction (Pandita & Kiran, 2023). Therefore, our conclusions are that this finding indicates that CCP change processes that stimulate students' reflective learning, and enable them to participate in progress in education career and also increase their study satisfaction. This is also significant findings, CCP in a course outline is an important education issue, since it has been significant influence on student education and consequently affect student career success (). Moreover, the positive relationship between CCP and PK is also consistent that asserted that factors which involve critical thinking and problem-solving skills are crucial for student success and career development. By implementing CCP in the course outline, students are encouraged to think critically, analyze information, and develop solutions to complex problems. This not only enhances their academic performance but also equips them with the necessary skills and mindset to excel in their future careers. Therefore, it is imperative for educational institutions to prioritize CCP and ensure its integration into the curriculum to foster students' overall growth and success.

Conclusion

On account of political unrest that occurred in Pakistan ever since country's founding, education has given less emphasis. Throughout history, successive governments have formulated educational policies and plans. Cognitive capacities of individuals who would be responsible for putting these policies and plans into action were not taken into design consideration. Regarding the one national curriculum, situation somewhat similar to this one occurred. Recent single national curriculum is one of finest document that need continuous development to gain student satisfaction. More, pedagogical knowledge also needs more attention, to improve the current form of national curriculum. Moreover, the lack of emphasis on cognitive abilities has resulted in a mismatch between the curriculum and the students' learning needs. As a result, students often struggle to grasp the concepts being taught, leading to low levels of student satisfaction. In order

to address this issue, it is essential to incorporate pedagogical knowledge into the development of the national curriculum. By considering the best teaching practices and understanding how students learn best, the curriculum can be improved to better meet the needs of the diverse student population. Continuous development and revision of the curriculum are crucial to ensure that it remains relevant and effective in preparing students for the challenges of the future. Additionally, teacher training programs should place a strong emphasis on pedagogical techniques and strategies. By equipping teachers with the necessary skills and knowledge to effectively engage students and deliver the curriculum, student understanding and satisfaction can be greatly improved. Furthermore, regular assessments and feedback from both students and teachers should be incorporated into the curriculum development process. This would allow for a continuous feedback loop, ensuring that any areas of weakness or confusion can be identified and addressed in a timely manner. In doing so, the national curriculum can evolve and adapt to the changing needs and demands of the education system, ultimately leading to higher levels of student success and satisfaction.

It was a situation quite similar to this that occurred with the mathematics curriculum. The mathematics curriculum that was implemented not too long ago is among the most impressive documents in the history of Pakistan. However, current mathematics textbooks were linked with this curriculum between the years 2012 and 2016, which is the difficulty. The curriculum was designed in 2006. At the elementary level in Pakistan, we are aware that mathematics is a topic that serves a significant purpose. Problem-solving and reasoning skills are essential for the survival of our next generation. Our emphasis must be directed toward the development of mathematical proficiency skills among both instructors and pupils if we are to achieve our goal of becoming the Pakistani nation mathematically literate. There is an immediate requirement to provide teachers with orientation regarding this curriculum. The most influential educator Sindh's provincial institution of teacher education (PITE) should design a continuing professional development (CPD) framework for mathematics teachers in Sindh. This is because teachers face problems in achieving their goals. Teachers' mathematics pedagogical topic knowledge needs to be major emphasis of continuing professional development (CPD). For purpose of developing mathematical teaching kits, the Sindh government's Education and Literacy Department ought to allot cash for the undertaking. Opportunities to watch mathematics sessions in other respected school systems,

such as Sukkur IBA community colleges, Beaconhouse, and the city school system, may be made available to a number of teachers working in government primary schools. There is a possibility that this will assist educators in altering their preconceived notions regarding the teaching and learning of mathematics. Another suggestion is to make it possible for educators to participate in mathematics olympiads and other competitions by providing them with the necessary time and resources. Regarding the national mathematics curriculum of Pakistan, the research also suggests that head teachers be educated on the subject. In order to build support mechanisms for mentoring teachers in schools, head teachers should receive training in the development procedure. Additionally, teachers who are in charge of schools ought to be prompted based on their merit. The current methodology for promoting head teachers is based on the amount of years of experience they have. For as long as Pakistan has existed, this paradigm has been widely used there. The credibility of this approach is quickly deteriorating. Annual performance evaluations are a method that has been proposed as a means of determining whether or not a head teacher should be promoted.

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