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A CASE STUDY OF THE MIDDLE SCHOOL PROGRAM (MSP)

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ABSTRACT

This study investigated stakeholder perceptions of the Middle School Programme (MSP), a project-based educational initiative launched by the Aga Khan University Examination Board to improve academic achievement and critical thinking among students in marginalized communities. Using a quantitative descriptive research design, data were collected from 289 purposively selected respondents, including administrators, teachers, and parents. A structured five-point Likert scale questionnaire was used to collect perceptions related to MSP's effectiveness in enhancing student outcomes. Analysis using SPSS included descriptive statistics and independent sample t-tests to explore gender-based differences in perceptions. Results indicated a strong consensus (80%–84.6%) among stakeholders that MSP positively impacts academic achievement, with minimal disagreement and neutral responses. Similarly, 78%–93.3% of participants agreed that MSP fosters critical thinking, especially among male parents. T-test results revealed no significant gender differences in most groups, except for parents, where male respondents perceived higher benefits in critical thinking. The findings affirm MSP's role in promoting inclusive, student-centered education and suggest its scalability to other underserved regions. Recommendations included expanding the program, enhancing teacher training, integrating critical thinking into the curriculum, and establishing robust monitoring systems.

Keywords: Middle School Programme (MSP), academic achievement, critical thinking, stakeholder perceptions, project-based learning, gender comparison, quantitative research, marginalized communities.

Introduction

Aga Khan University Examination Board is an educational system for 6th, 7th, and 8th-grade students. It is a type of education that recognizes the diversity of students through collaboration and that provides a broad foundation. Project-based learning was a teaching method that encouraged students to learn by applying knowledge in the real world. It provided a variety of skills that supported the development of students' knowledge and skills. The Middle School Program (MSP) is a new program that started by providing quality education to marginalized communities (Kumar, 2020). The program aims to develop students' positive thinking, creativity, and social responsibility, with the ultimate goal of promoting social and cultural development (Singh, 2019). Education is a fundamental right and an important factor in determining a person's future (UNESCO, 2017). However, marginalized communities often face significant barriers to quality education, such as inadequate infrastructure, outdated materials, and inadequate teacher training (World Bank, 2018). MSP is used to respond to these problems and provide educational support that encourages students to reach their potential (Kumar, 2020).

Although its approach is promising, MSP needs to be evaluated for

its effectiveness in achieving results (Scriven, 2013). This study aims to address this experience by examining the program's curriculum and instruction, examining its impact on student learning and personal development, and identifying best practices for its design and implementation (Creswell, 2014). The importance of this study lies in its ability to contribute to existing research on new topics, provide a better understanding of the strengths and weaknesses of MSP, and suggest ideas for replicating and adapting the program in other contexts (Hargreaves, 2012). MSP aims to solve these problems by providing educational support that encourages students to reach their full potential (Kumar, 2020). This program focuses on developing students' positive thinking, creativity, and social responsibility with the ultimate goal of promoting social and economic development (Singh, 2019).

Research showed that innovative programs such as MSP can have a positive impact on student success, especially in underserved communities (Hargreaves, 2012). However, the effectiveness of these services needs to be evaluated to ensure that they achieve their goals (Scriven, 2013). MSP has been implemented in more than 100 schools in Punjab, covering more than 10,000 students (MSP, 2020). Although his approach has been successful, he still needs to explore curriculum and instruction, examine their impact on student learning and personal development, and identify best practices for their design and implementation (Creswell, 2014).

Statement of Problem

Middle school education in Pakistan faces significant challenges, including outdated pedagogical practices, limited teacher training, and a lack of emphasis on holistic student development. These issues often lead to disengagement, poor academic performance, and underdeveloped critical thinking skills among students during this crucial phase of their educational journey. While a global study highlighted the importance of targeted interventions at this stage, there remains a gap in localized programs tailored to address the unique needs of middle school students in Pakistan.

Objectives of the Study

There were following objectives of the study:

1. To explore and analyse the perceptions of key stakeholders, students, teachers, and administrators, regarding the effectiveness of the Middle School Programme (MSP) and its influence on students' academic achievement.
2. To examine stakeholders' perceptions of the Middle School Programme (MSP) in fostering critical thinking skills among students.

Research Questions

There were the following research questions of the study:

1. What are the perceptions of students, teachers, and administrators regarding the effectiveness of the Middle School Programme (MSP) in enhancing academic achievement?
2. How do stakeholders perceive the role of the Middle School

Programme (MSP) in fostering critical thinking skills among students?

Research Methodology

This study employed a quantitative descriptive research design to investigate stakeholders' perceptions of the Middle School Programme (MSP) and its influence on students' academic achievement (Creswell, 2014). The study aimed to gather data systematically to identify trends and patterns in stakeholders' views across various roles and genders.

Population of the Study

The population for this study comprised key stakeholders involved in the implementation and observation of the MSP, including school administrators, teachers, and parents from middle schools where the program was operational. A total of 289 respondents were selected through purposive sampling, ensuring that only those with direct knowledge and experience of the MSP were included (Etikan, Musa, & Alkassim, 2016).

Sample of the Study

The sample consisted of 50 administrators (25 male, 25 female), 100 teachers (50 male, 50 female) and 75 parents (39 male, 36 female). This distribution provided a balanced representation across gender and stakeholder categories, supporting meaningful comparisons.

Tool of Data Collection

Data were collected using a structured questionnaire designed on a five-point Likert scale (Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree). The questionnaire included items specifically related to perceptions of the MSP's impact on students' academic achievement. Content validity of the tool was ensured through expert review (Fraenkel, Wallen, & Hyun, 2012). To establish reliability, the instrument was pilot tested, and Cronbach's Alpha was calculated, yielding a value greater than 0.70, confirming internal consistency.

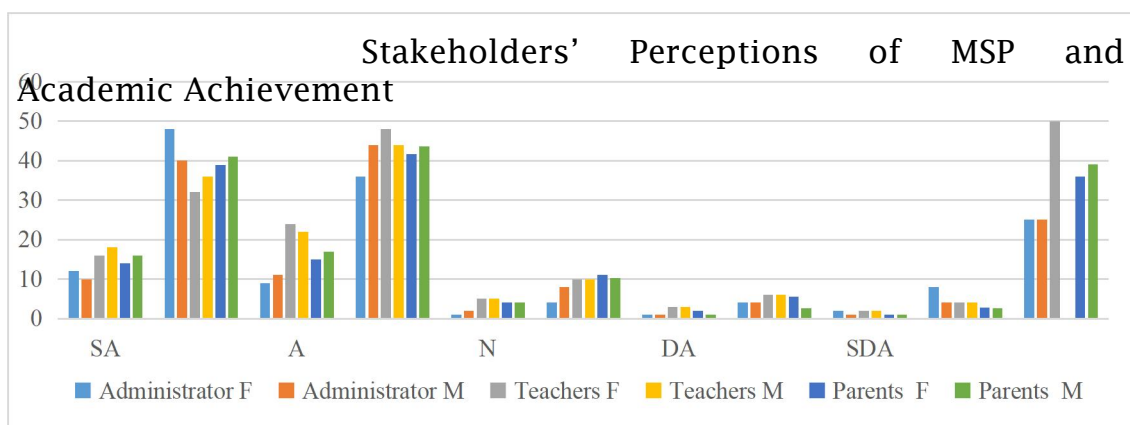
Data Collection and Analysis of the Data

Participants completed the questionnaire in school and home settings after informed consent was obtained. Data were analyzed using SPSS. Descriptive statistics (frequencies, percentages, means, and standard deviations) were used to summarize the data. In addition, independent sample t-tests were conducted to assess gender-based differences in perceptions within each stakeholder group. The level of statistical significance was set at $p < 0.05$ (Tavakol & Dennick, 2011).

Table#1.1: Stakeholders' Perceptions of MSP and Academic Achievement (In line with Objective 1)

Stakeholders	Gender	Academic Results						Achievement						Total	Response
		SA		A		N		DA		SDA					
		N	%	N	%	N	%	N	%	N	%				
Administrator	F	12	48.0	9	36.0	1	4.00	1	4.00	2	8.00	25			
	M	10	40.0	11	44.0	2	8.00	1	4.00	1	4.00	25			
Teachers	F	16	32.0	24	48.0	5	10.0	3	6.0	2	4.0	50			
	M	18	36.0	22	44.0	5	10.0	3	6.0	2	4.0	50			
Parents	F	14	38.9	15	41.7	4	11.1	2	5.6	1	2.8	36			
	M	16	41.0	17	43.6	4	10.3	1	2.6	1	2.6	39			

Table #1.1 showed that stakeholders' perceptions of administrators, teachers, and parents regarding the impact of the Middle school Program on academic achievement, segmented by gender. Responses were collected using a five-point Likert scale having options (Strongly Agree (SA), Agree (A), Neutral (N), Disagree (DA), and Strongly Disagree (SDA)). A significant majority across all groups agreed and strongly agreed (80%-84.6%) that MSP positively influences the academic achievement of students. Female administrators (84%) and male parents (84.6%) showed slightly stronger positive perceptions compared to their colleagues. Neutral responses ranged from 4%-11.1%, with minimal disagreement (2.6% 8%). The results indicated a broadly favourable view of MSP's role in enhancing academic results, with minor gender-based variations.



Fig#1.1: Stakeholders' Perceptions of MSP and Academic Achievement

Table#1.2: Gender-Based Comparison of Academic Achievement

Stakeholders	Gender	Academic Achievement Results			Comparison. Gender		
		N	Mean	S. D	The significant difference using the t-test		
Administrators	F	25	4.12	1.17	0.00	2.021	>0.05
	M	25	4.12	0.99			
Teachers	F	50	3.98	0.98	0.02	1.984	>0.05
	M	50	4.02	1.03			
Parents	F	36	4.08	1.04	0.44	1.994	>0.05
	M	39	4.18	0.90			

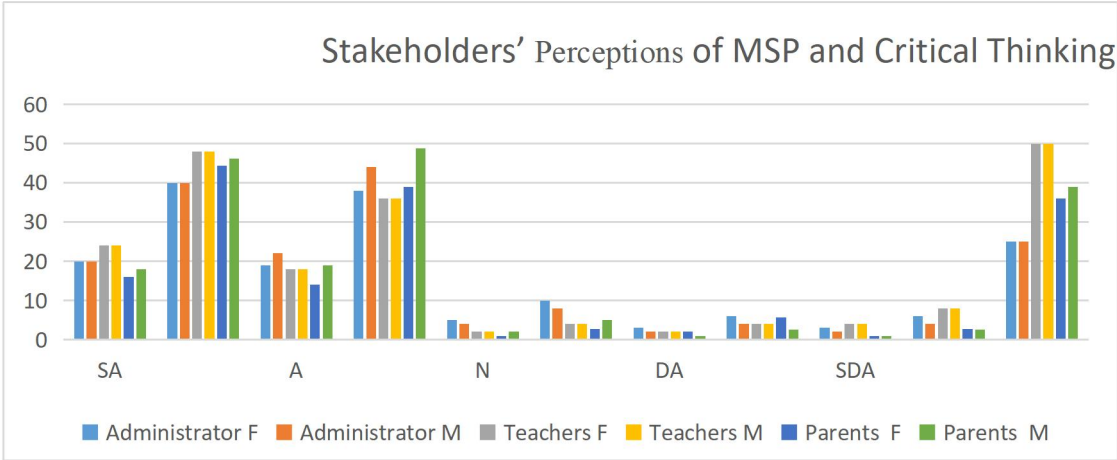
Table#1.2 compares academic achievement perceptions between genders among administrators, teachers, and parents using t-test analysis. The sample included 25 females and 25 male administrators, 50 female and 50 male teachers, and 36 female and 39 male parents. Mean scores (3.98-4.18) and standard deviations (0.90-1.17) were similar across genders within each group. The t-test results ($t_{\text{cal}} < t_{\text{tab}}$, $P > 0.05$) indicated no significant gender-based differences in perceptions of academic achievement. These findings suggested that gender did not significantly influence stakeholders' views on MSP's impact on academic performance.

Table#1.3: Stakeholders' Perceptions of MSP and Critical Thinking

Stakeholders	Gender	B. Results				Critical				Thinking				Total	Response
		SA		A		N		DA		SDA					
		N	%	N	%	N	%	N	%	N	%				
Administrator	F	20	40.0	19	38.0	5	10.0	3	6.0	3	6.0	25			
	M	20	40.0	22	44.0	4	8.0	2	4.0	2	4.0	25			
Teachers	F	24	48.0	18	36.0	2	4.0	2	4.0	4	8.0	50			
	M	24	48.0	18	36.0	2	4.0	2	4.0	4	8.0	50			
Parents	F	16	44.4	14	38.9	1	2.8	2	5.6	1	2.8	36			
	M	18	46.2	19	48.7	2	5.1	1	2.6	1	2.6	39			

Table#1.3 indicates stakeholders' perceptions of the MSP's impact on critical thinking, categorised by gender. Responses were measured on a five-point Likert scale. A majority of stakeholders agreed and strongly agreed (78%-93.3%) that MSP enhanced critical thinking skills. Teachers (both genders, 84%) and male parents (94.9%) showed particularly strong positive perceptions. Neutral responses were low (2.8%-10%), and disagreement was minimal (4%-

8%). The results highlighted a strong positive perception of MSP’s role in fostering critical thinking, with slight variations by gender and stakeholder role.



Fig#1.2: Stakeholders’ Perceptions of MSP and Critical Thinking
Table #4.4: Gender-Based Comparison of Critical Thinking

Stakeholders	Gender	Critical Thinking Results			Comparison. Gender		
		N	Mean	S. D	The significant difference using the t-test		
Administrators	F	25	4.00	1.60	0.57	2.021	>0.05
	M	25	4.24	1.38			
Teachers	F	50	4.12	1.16	0.00	1.984	>0.05
	M	50	4.12	1.16			
Parents	F	36	4.00	0.97	2.34	1.994	0.02-0.005
	M	39	4.49	0.82			

Table 4.4 compares critical thinking perceptions between genders using t-test analysis. The sample comprises 25 female and 25 male administrators, 50 female and 50 male teachers, and 36 female and 39 male parents. Mean scores range from 4.00-4.49, with standard deviations of 0.82-1.60. For administrators and teachers, t-test results ($t_{cal} < t_{tab}$, $P > 0.05$) showed no significant gender differences. However, for parents, a significant difference was observed ($t_{cal} = 2.34$, $P = 0.02-0.005$), with male parents reporting higher perceptions (mean = 4.49). These results suggested gender influences critical thinking perceptions among parents, but no other groups.

Discussion

The findings from Table 4.1 indicated that the majority of stakeholders, including administrators, teachers, and parents, hold

positive perceptions regarding the impact of the Middle School Programme (MSP) on students' academic achievement (Kumar, 2020). Responses from both male and female participants revealed a strong tendency toward agreement or strong agreement, ranging from 80% to 84.6% across all groups (Hattie, 2009). Among administrators, female respondents (84%) showed slightly more favorable views compared to their male counterparts (80%) (Thomas, 2000). A similar pattern was observed among parents, where male respondents (84.6%) rated the program positively than females (80.6%) (Boekaerts, 2016). Teachers showed relatively balanced responses across gender, with 80% expressing agreement or strong agreement with MSP's positive influence on academic performance (Darling-Hammond et al., 2019).

The neutral responses remained relatively low (4%-11.1%), and disagreement was minimal (as low as 2.6% in some cases), reflecting trust and satisfaction in the MSP framework (Hargreaves, 2012). This aligned with a global study indicating that well-structured, student-centered programs, particularly those incorporating project-based learning, may effectively engage learners and improve academic performance, especially in underserved contexts (Kumar, 2020; Hargreaves, 2012). In terms of gender-based differences, Table 1.2 revealed that t-test results did not show any statistically significant variation in perceptions between male and female stakeholders across all groups (UNESCO, 2015). The p-values were consistently above 0.05, confirming that both genders view the academic impact of MSP similarly (Stromquist, 2007). This was encouraging, as it suggested that the program was perceived as equitable in its approach and effects, regardless of gender differences (Unterhalter, 2006). These findings supported the claim that MSP fosters an inclusive educational environment, appreciated similarly by different stakeholder groups (OECD, 2018). They also indicated the program's success in addressing long-standing challenges in middle school education, such as outdated pedagogy and low student engagement (Darling-Hammond et al., 2019).

Conclusions

The study concluded that the Middle School Programme (MSP) was widely perceived as effective in enhancing students' academic achievement across various stakeholder groups. Both male and female administrators, teachers, and parents expressed strong agreement that MSP contributed positively to learning outcomes. The minimal gender-based differences in perception, as evidenced by t-test results, further highlighted the inclusive and balanced impact of the program. These results validate MSP's role in responding to educational needs in marginalized communities by offering a curriculum that promotes academic growth through active and meaningful learning. Given the positive perceptions, it was recommended that the program be scaled, sustained, and further evaluated through longitudinal studies to measure long-

term academic outcomes. Policymakers and educational leaders may also consider adopting similar frameworks to improve middle school education in other underserved areas.

Recommendations

There were following recommendations of the study:

1. Given the positive perceptions of the program's impact on academic achievement, the MSP should be expanded to other middle schools, particularly in underserved and marginalized areas. Its project-based, student-centered approach has proven effective and should be sustained through ongoing funding and policy support.
2. To maintain and improve the effectiveness of MSP, continuous professional development for teachers is essential. Training should emphasize innovative teaching strategies, assessment methods, and classroom management that align with MSP's philosophy of active learning and critical thinking.
3. Since stakeholders showed strong support for MSP's role in developing critical thinking, curriculum planners should embed higher-order thinking skills explicitly across all subject areas. Activities like debates, reflective writing, and inquiry-based projects may further enhance these skills.
4. A robust, data-driven monitoring and evaluation framework should be implemented to assess both short-term learning outcomes and long-term student development. This will help identify areas of strength and needed improvement, ensuring the program remains responsive and effective.
5. Although no significant gender-based differences were observed in most stakeholder groups, gender-sensitive pedagogical practices should continue to be promoted to ensure equity in learning opportunities and outcomes, especially as the program scales.
6. Stakeholders, especially parents, had shown supportive perceptions of MSP. Schools should further engage families and communities through regular feedback sessions, awareness campaigns, and participatory events to strengthen home-school partnerships and reinforce learning outcomes.
7. Documenting and disseminating MSP's success stories, innovative classroom practices, and student achievements may inspire other schools and educators to adopt similar models. This can be done through workshops, publications, and digital platforms.
8. Educational policymakers should consider lessons from MSP while revising national or provincial middle school policies. Emphasizing creativity, critical thinking, and learner-centered instruction aligns with global educational goals and national development objectives.

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