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**Timetable Management and Its Impact on Teacher Efficiency in Schools****Tasmia Noor**

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ABSTRACT

This paper analyze how timetable management can affect the effectiveness of teachers and student academic achievements. Timetable management is a very vital part of education management that determines how an instructional time is allocated, the workload of a teacher and the general arrangement of school education. A quantitative research design was used in data collection process where 94 teachers were sampled to determine the effect of schedule stability, workload allocation, and sufficiency of breaks and participation of teachers in the timetable preparation process on teaching performance and student behavior. The research results indicate that properly planned and regular schedules also contribute enormously to student motivation, discipline, engagement, and academic success. To teachers, an adequate allocation of work, appropriate breaks, and certain predictability are strong predictors of increased efficiency, job satisfaction, and efficient task management. Nevertheless, the paired samples t-test suggests that the difference between managing the timetable overall and consulting teachers is significant, which implies that teachers have not been consulted in the process of timetable management. The paper concludes to state that sound timetable management is critical in the establishment of efficient learning conditions, in enhancing the quality of instruction and empowering the performance of institutions. It is advised to involve teachers more, distribute duties equally, switch to digital scheduling, and assess the efficiency of the timetable on a regular basis. This study is relevant in the work of policy makers and school leaders who want to enhance academic performance and the output of teachers by using effective time schedule.

Keywords: Management, Academic, Schedule, Effect, Performance.

Introduction

A schedule is an organized plan of the school activities scheduled over the day, week, term, or year. It shows the beginning hour and hour of each activity, and the smallest unit is called the duration which is usually 30 to 60 minutes based on the country, level of education and the type of school. Timetabling must be fair and balanced where time is distributed proportionately to requirements of curriculum and prescribed time of instruction. The school schedules are planned

by various aspects which encompass the duration of the school day, the school week, the school year; hours needed on instruction; the subjects available; teacher availability; and facility availability (Downing and Peckham, 2001).

A timetable that is properly designed is significant in providing quality education to the learners and an ergonomic working environment to the teaching staff. Nevertheless, it is difficult to create a perfect schedule, since the schedules used in the real world are usually filled with some restrictions, including unequal distribution of lessons, lack of rooms, too much idle time on the side of the teachers, and complicated rotations of subjects. Considering these limitations, some flexibility is frequently required, and most institutions have an optimally useful timetable as opposed to an optimal one (Ashwin et al., 2025).

Having effective timetabling practices has been realized to play a major role in improving the performance of secondary schools. The process of timetabling is the process of scheduling time to academic and non-academic activities and is an important aspect of managing the school. It directly influences the student learning outcomes, teacher productivity and the overall institutional effectiveness (Olaifa et al., 2025). The management of timetables also affects the efficiency of the teachers as it shapes quality of teaching, allocation of work, and use of resources. The issues of availability of teachers, curriculum needs, and other subject-specific requirements make scheduling quite complex, which explains the necessity to employ efficient planning and technology-related solutions to facilitate the efficient development of a timetable (Shelar et al., 2025).

The research is significant to the discussion of the importance of timetable management in improving the quality of education in the high schools within the state. To have a smooth and efficient running of a school, a well-planned schedule is necessary. The main task of working out a school schedule is to allocate all courses in a weekly time frame, match them with suitable professors, as well as to make sure that learning goals are accomplished. A proper schedule will enhance discipline, better time management, and will aid in providing logical and organized working environment to teachers and students.

Methodology

The study population was the teachers in the public high and higher secondary schools of Faisalabad. The School Education Department claimed 105 high schools and 21 higher secondary schools operating in the city and have 252 teachers. Due to time constraints, resources and availability, it was impractical to gather information among all the population. Consequently, a sample was picked. A sample of 94 teachers was selected in accordance with the online sampling calculator (www.surveysystem.com) at a 95-percent confidence and at 8-percent confidence interval. To make sure that every member of the population had an equal opportunity of being selected and minimize selection bias, simple random sampling was embraced.

A structured questionnaire was the major research tool of collecting data. The closed-ended questions were on the five-point Likert scale of strongly agree (1) to strongly disagree (5). The tool aimed at capturing the opinion of teachers as to the importance of timetable management in enhancing the quality of education. Expert review was the method used to guarantee the validity of the instrument. Depending on their feedback, necessary changes were made and the supervisor gave final approval. Cronbachs Alpha was used to determine reliability of the instrument and the coefficient of 0.733 was obtained which was an acceptable level of internal consistency. After ensuring reliability and validity, instrument was used to collect the data, the collected data were analyzed and different statistical values were computed.

1-The frequency of a response multiplied by the Likert weight was computed as the weighted score (WS) of every item, and the items were ranked in Rank Order (RO).

2-Multiple linear regression analysis to establish the relationship between the various factors of timetable management and the overall teacher efficiency. The Teacher Efficiency was the dependent variable, whereas the predictors were Workload Distribution, Break Adequacy, Schedule Consistency, Teacher Consultation and Minimization of Conflict. A Likert-scale questionnaire was used to collect data on 94 teachers. The regression equation that was used was:

$$\text{Teacher Efficiency} = 0.85 + 0.28(\text{WD}) + 0.25(\text{BA}) + 0.19(\text{SC}) + 0.15(\text{TC}) + 0.11(\text{CM})$$

Where WD = Workload Distribution, BA = Break Adequacy, SC = Schedule Consistency, TC = Teacher Consultation, and CM = Conflict Minimization. To determine the significance of predictors and to test the multicollinearity, standard errors, b-values, t-statistics, p-values, and VIF were calculated.

3-Paired samples t-test to make comparisons between two related variables: Overall Timetable Management and Teacher Consultation. The paired design was suitable in identifying differences within the same group since both variables were assessed on the basis of a Likert-scale questionnaire that was administered on the same group of 94 teachers. The test was investigating the presence of statistically significant difference between the two mean scores. To this end, the Mean, Standard Deviation (SD), Mean Difference, t- value and degrees of freedom (df = 93) and p-value were determined. The given methodology enabled the researcher to check the perceptions of the teachers regarding the overall timetable management in relation to the level of consultations that they get during the scheduling process.

Results and Discussion

Table 1 Effects of time table on students achievements

Academic achievements	Mean	SD	WS	RO
Improper timetable grounds unorganized behavior of high school students	2.46	1.28	232	1
Due to periodic shift, motivational level of students towards their study is affected	2.27	1.17	214	2
Timing is considered a major tool to ensure the engagement level of students in study.	2.22	1.18	209	3
Proper timetable in school enables the student to achieve success in his overall academic career	2.05	1.21	193	4
Time table effectiveness ensures team work that enhances student's educational performance	2.04	.94	192	5
Time table provides a direction to students to achieve enhanced curricular performance.	1.98	.93	187	6
It develops a disciplined attitude among students towards subject study.	1.96	.92	185	7
Students' ability to achieve high grades is based on time management.	1.92	1.07	181	8

The results in the table strongly portray that the way in which a school organizes its schedule may have a strong impact on the academic behavior and performance of the students. To give an example, the highest ranking that a bad schedule will result in disorganized behavior is echoed by empirical studies that indicate that a bad schedule may result in more absences among students and hence poor performance. Larabi et al. (2021) discovered that aspects of timetable design (number of lectures a day, number of courses, free slots) were highly predictive of student

absences and GPA, which indicates the importance of timetable design on academic performance.

The other significant observation is that periodic schedule changes impact negatively on motivation of students (Mean = 2.27). This is correlated with the rest of the literature on time management: e.g., Nasrullah and Khan (2015) discovered that students with good time management, i. e. who plan, organize and prioritize their time, have better academic outcomes. Students who have unstable or fluctuating school schedules might lose stability and predictability that contributes to their motivation as well as their self-regulation.

In addition, the idea that timing constitutes one of the key instruments to make sure of engagement (Mean = 2.22) is in line with the study on the effectiveness of structured scheduling in fostering superior learning habits. When students organize their time successfully, they are able to control their studying habits, be more attentive in the classroom, and prevent procrastination (Khanam et al., 2017).

The fourth stage of the table shows that proper schedule allows overall academic success (Mean = 2.05) is also rise and fall of the literature. Time management skills are over and again linked to greater achievements. Using an example of higher secondary students, Cyril (2015) has shown that there is a positive correlation between time-management practices of students and the level of academic achievement. This highlights the importance of effective schedule to good learning in the lifetime of a student.

Moreover, it can be conceptually related that timetable effectiveness enhances teamwork (Mean = 2.04). With an explicit arrangement and a schedule of time, students can organize group work, discussion, and group tasks all of which enhance the learning process. Though direct empirical studies that directly associate timetable design with teamwork are few, time management studies in general emphasize the advantages of planning skills in increasing a sense of agency and ability to do common work. Besides, lower-ranking items that a schedule provides guidance to curricular performance, create discipline, and facilitate high grades through time-management are in line with what time-management literature has long demonstrated. Planning assists students in goal setting, time management on various subjects, and self-control, which are associated with high grades and discipline (Nasrullah, and Khan, 2015; Subramanian, 2016).

Table 2 Effect of timetable management on teachers

Academic duties of teachers	Mean	SD	WS	RO
Teachers find more clarity in their tasks	2.57	1.14	242	1 st
Proper timetable implementation enhances teachers' satisfaction level.	2.39	1.05	225	2 nd
Teachers work freely and show high level of performance	2.38	1.27	224	3 rd
Effective planning and implementation show good results.	2.36	1.14	222	4 th
Timetable guides the teaching staff to set their priorities in more appropriate way	2.24	1.00	211	5 th
Improve management skills of teachers	2.21	1.18	208	6 th
It provides a comfort zone to teachers to perform their duties more effectively	2.14	1.08	202	7 th
Teachers are offered with an opportunity to refine their lesson plans by collaborating colleagues during preparation sessions	2.09	1.19	197	8 th

Teachers behavior towards their duties is positively influenced.	2.04	1.01	192	9 th
Time table guides teachers to manage their resources efficiently	2.03	1.23	191	10 th
Advanced preparation of lesson plans and activities	2.01	1.28	189	11 th
Enhance dedication and commitment of teachers	1.97	.97	186	12 th
Allocation of time for students counseling and guidance	1.89	.93	178	13 th
Timetable enhances the punctuality of teachers	1.87	.95	176	14 th
Proper time management and allocation to acquire student's participation	1.87	.98	176	15 th

The data suggest that a well-managed timetable significantly influences teachers' clarity of tasks (Mean = 2.57), which was ranked first. This makes sense given research indicating that when teachers' time is structured and predictable, they have more control over their day. Nevertheless, when schedules are not designed well, it may result in time poverty in which teachers are highly disoriented and uncontrolled of their time schedules. In a study conducted by Yang et al. (2023) it was established that time poverty in teachers is positively correlated to a factor known as time confusion tendency in that when teachers are unable to manage or predict their schedules they are less effective and satisfied.

Second point is relevant to state that the implementation of timetable correctly increases the level of satisfaction among teachers (Mean = 2.39) is supported in literature as well. Indicatively, one study in the Journal of Educational Research (2020) established that there is a significant positive correlation between job satisfaction and time management skills of the teacher. As soon as teachers are able to prioritize their tasks and schedule them, such as in terms of class teaching, preparation, and/or administrative work they are much more content with their position.

It is also revealed in the table that when the timetable is working, teachers say that they work freely and exhibit high level of performance (Mean = 2.38). This is echoed by the research of time management: Olivo (2021) found out that the strategies employed by teachers included planning ahead of the classes, writing down a list of the tasks that they saw as important, and scheduling their days, which enables them to concentrate on core teaching responsibilities more effectively. This is the freedom to plan and use the time wisely enabling them focus on quality teaching.

Moreover, the fact that good planning and implementation deliver good results (Mean = 2.36) represents what numerous researches indicate: when teachers have the time dedicated to planning or non-teaching activities (an advantage of good timetable design), they can plan more comprehensively, think about student progress, and liaise with other teachers. As an example, block scheduling (prolonged classes) research suggests that the more time non-class time, the greater the opportunities teachers have to plan their lessons, making them better.

The concept that teachers have a timetable that helps them to set priorities is also highly-grounded (Mean = 2.24). Effective time management by teachers enables them to differentiate between urgent and important tasks and hence manage their tasks better. This prioritizing will be beneficial in the situations when the time is scarcity and it will make work more satisfying. Similarly, time management practices were found to alleviate stress due to workload particularly when teachers adopt mechanisms such as the setting of goals, delegation and timely schedule. Indirectly, literature supports Timetable management: the more the teachers manage their timetables, the more they have to make decisions regarding task distribution, planning, and

resource utilization all of which are related to managerial skills. Although not every one of these studies states timetable directly, they underline that time management is the key competency. The fact that teachers are comfortable to execute their duties more efficiently (Mean = 2.14) is indicative that having predictable scheduling eases the anxieties and enhances efficacy. This aligns well with the results given by other studies that found heavy or unpredictable load (when not dealt with) to have negative impacts on teacher efficiency and well-being. As an illustration, a research conducted on university level, established that the high workload of the teachers adversely affected their productivity. Your items related to collaboration in lesson planning (Mean = 2.09), positive behavior toward duties (Mean = 2.04) and time to manage resources (Mean = 2.03) also connect to the manner in which structured non-teaching time can allow collaboration among peers and increased use of resources. Although it is not as common that specific empirical papers support these very points, the overall principle is consistent with what the research on teacher planning time and time management indicates.

The lower ranked effects like the advanced preparation of lesson plans (Mean = 2.01), commitment/dedication (Mean = 1.97), time to student counseling (Mean = 1.89), punctuality (Mean = 1.87) and time to manage student participation (Mean = 1.87) also have logical sense. Increased control and better organization of teachers over their time gives them more time to plan lessons in details and instruct students and handle tasks most of which are overlooked because of time constraints. It is true that research results indicate that time management can be better in order to lessen stress and enhance job satisfaction, which can subsequently sustain commitment and punctuality.

Table 3 Multiple Regression Analysis Predicting Overall Teacher Efficiency

Predictor Variable	B	SE B	β	t	p-value	VIF
(Constant)	0.85	0.35		2.43	.017	
Workload Distribution	0.28	0.09	.29	3.11	.002	1.84
Break Adequacy	0.25	0.08	.27	3.13	.002	1.92
Schedule Consistency	0.19	0.07	.20	2.71	.008	1.65
Teacher Consultation	0.15	0.08	.13	1.88	.063	1.45
Conflict Minimization	0.11	0.07	.11	1.57	.120	1.72

According to table workload distribution proves to be the most predictive factor of total teacher efficiency ($b = .29$, $p = .002$). This finding is consistent with other empirical research that proves that the workload which is high or unbalanced has negative impacts on the effectiveness of teachers. Indicatively, Kanwal et al. (2023) established that, teachers who had heavy workloads complained of stress, burnout, and a lack of engagement and consequently, their efficiency in teaching was lowered. Furthermore, it is claimed that the reduction of extraneous workload can enhance the well being and job performance of the teacher (ASCd, 2025).

The second important predictor, break adequacy ($b = .27$, $p = .002$), implies that the relevant periods of rest or non-teaching in a schedule are critical in sustaining teacher performance. Although break adequacy is rarely modeled in the empirical studies in its pure form, it is conceptually connected with time use studies demonstrating that subjective experience of time pressure among teachers and their sense of time poverty are associated with high levels of stress and negative well-being that may adversely affect the teaching tasks and activities of the teacher (Chen and colleagues, 2025).

A schedule consistency ($b = .20$, $p = .008$) is also a significant predictor. This implies that in cases where the instructional burden of teachers and their schedule are more consistent or predictable teachers are able to plan more efficiently, organize their work, and be more efficient. This is in line with the literature concerning the teacher time use: research of the Australian Educational

Researcher has pointed that the variability of task demands and the "work intensification" (not the amount of time spent, but the fragmentation or inconsistency of the same) has a strong impact on the quality of teacher time and teacher performance.

Teacher consultation ($b = .13$, $p = .063$) and conflict minimization ($b = .11$, $p = .120$) were not found to be traditionally significant in your model, on the other hand. Although they correlate positively with efficiency in your data, the lesser effects hint that although the association of teachers in scheduling decisions (consultation) and the elimination of overlaps/conflicts in the timetables are positive, they might not affect efficiency directly as strongly as workload balance or rest structures.

Collectively, your regression findings contribute to the fact that the structural elements of timetable-related design, 1, not unfair workload, 2, enough breaks, and 3, the stability of the schedule, are the most significant predictors of teacher efficiency. Practically, this implies that when school administrators create timetables, they are advised to pay attention to the following considerations: workload distribution, non-instructional time should be meaningful (not a filler) and schedules must be as regular as possible. Such interventions would be real in enhancing the performance and well being of the teachers.

Table 4 Paired Samples T-test: Timetable Management vs. Teacher Consultation

Variable Pair	Mean	SD	t-value	df	p-value
Overall Timetable Management	3.10	0.85	9.45	93	< .001
Teacher Consultation	2.10	1.05			
Mean Difference	1.00				

The paired samples t-test was used to compare the perceptions of the teachers on overall timetable management with their perceptions of teacher consultation in preparation of timetables. The findings show that there exists a significant variance between the two variables. The overall timetable management was rated rather positively by the teachers ($M = 3.10$, $SD = 0.85$), whereas the attitude to being consulted in timetable preparation was rated quite lower ($M = 2.10$, $SD = 1.05$).

The average difference of 1.00 indicates that there is a wide disparity between the perceived level of control over timetables and the perceived level of participation in timetable decision-making between teachers. This difference is confirmed to be statistically significant and not by chance as the t-test, $t(93) = 9.45$, $p = .001$ is 9.45.

These results indicate that schools might be doing sufficient administrative tasks in administration of timetables but they lack the participative element. The teachers do not feel much consulted and this might influence their ownership, motivation and satisfaction towards the schedule. Failure to consult with the teacher may create discrepancies between scheduled teaching time and availability of teachers, decrease in efficiency and stress/workload inequality. Essentially, the findings indicate the lack of a relationship between teaching practice and management engagement. Enhancing teacher consultation in timetable development may reinforce the management process as a whole, increase transparency and professional efficiency and productivity of the teachers.

Conclusions

The research indicates that schedule control has a heavy influence on student performance and teacher effectiveness in Faisalabad in state high schools. Properly organized schedule helps in motivating, disciplining, engaging and performing academically among students, whereas poor or inconsistent schedule causes disorder and poor learning performance. In the case of teachers, the distribution of work, the regular schedule of work and sufficient time of rest is effective in enhancing the clarity of tasks, job satisfaction and performance. The findings of the regression

analysis prove that these schedule aspects are robust predictors of teacher efficiency. Another gap revealed in the study is that the overall timetable management and teacher consultation are significantly different, which means that teachers consider that their participation is restricted during the development of the timetable. More teacher engagement would enhance ownership and stress reduction. Altogether, proper management of timetables can help to improve the quality of education through the improvement of student behaviors, as well as raising the achievement, teacher productivity, and making the school environment more organized. Equitable allocation of work, regular schedules, adequate rest, and teacher involvement should be the priority of school administrators in enhancing teaching and learning results.

Recommendations

According to the research results, the schools need to consult more teachers when drawing timetables since the more teachers are involved, the better schedules are to represent their availability, working capacity, and the knowledge of the subjects. This will make teachers feel ownership and minimize stress caused by inadequately coordinated schedules. The administrators should also make sure that the teaching periods are fairly and equally distributed to avoid excessive workload and encourage productive teaching behaviors. It is also important to have stable and consistent schedules which are disruptive to the learning habit of the students and the planning of the lesson by the teachers. Provision of proper breaks to teachers during the day is another important consideration as this will allow the teacher to deal with fatigue, lesson planning, and offer quality teaching. Moreover, sequencing of subjects should be optimized, and more challenging ones should be done in the first part of the day and the practical lessons should be matched with the presence of rooms and facilities. Schools are advised to implement software or computer-based systems to develop timetables to ensure that they reduce errors, room assignments, and intricate schedule limits in an efficient way. Continuous improvement can also be supported by regular observation of the timetable effectiveness with references to the feedback provided by both teachers and students. Finally, the school administrators need to be trained to be experts in timetable design and management so that they can build the capacity to create student-friendly, structured, and efficient schedules. These measures will greatly improve the quality of teaching, the performance of students and the overall performance of the school institution.

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