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A Comparative Study on the Effectiveness of Different Strategies for Improving Concentration in Students (A Case Study in the Context of Narela-North Delhi)

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Abstract

The present article *A comparative study on the Effectiveness of different strategies for improving concentration in students (A Case Study in the Context of Narela-North Delhi)* investigates the effectiveness of different strategies for improving concentration among students in Narela, North Delhi. Given the critical role of concentration in academic achievement, the research aims to identify and compare the impact of various interventions on student focus. The study employs a mixed-methods approach, combining quantitative measures (pre-test and post-test scores on concentration levels) with qualitative insights (interviews and surveys). The strategies examined include mindfulness exercises, physical activity breaks, environmental adjustments, time management training, and cognitive exercises. Participants, selected from local schools in Narela, were divided into groups, each implementing one of the strategies over a four-week period. Data analysis indicates that physical activity breaks and mindfulness techniques yielded the most significant improvements in concentration, while environmental modifications showed moderate benefits. Socio-economic factors, such as access to study materials and parental involvement, were found to influence the success of these strategies. The study highlights the importance of tailored interventions in enhancing student focus and provides practical recommendations for educators and policymakers. This research contributes to the growing body of literature on concentration improvement strategies in diverse educational settings, particularly in low-resource areas like Narela.

Keywords: **Concentration, Academic Performance, Student Focus, Mindfulness, Physical Activity, Educational Strategies, Narela, North Delhi, Socio-Economic Factors, Intervention Effectiveness.**

1. Introduction

1.1. Background and Rationale

Concentration is a pivotal factor in determining students' academic performance, as it directly influences their ability to process, retain, and apply information. Effective concentration fosters deeper learning and better task execution, both of which are critical for academic success (Alloway & Alloway, 2010). However, maintaining consistent focus is often a challenge for students, particularly in resource-constrained areas where socio-economic factors and environmental distractions are prevalent.

In contrast, a lack of concentration can hinder the learning process. When students struggle to maintain focus, they may miss key information, make errors, or fail to complete tasks on time. This can result in frustration, lower self-esteem, and a diminished sense of academic competence. As academic tasks become increasingly complex, the importance of concentration grows, and the ability to stay engaged with challenging content becomes even more critical for success.

However, maintaining consistent focus is often a challenge for students, particularly in resource-constrained areas where socio-economic factors and environmental distractions are prevalent. In low-income communities, students may face a range of external obstacles that impede their ability to concentrate. These can include overcrowded classrooms, limited access to educational resources, noise pollution, and inadequate lighting. Additionally, many students in such areas must juggle schoolwork with other responsibilities, such as helping with household chores or working part-time jobs, which can further erode their ability to focus on academic tasks.

Socio-economic factors also play a significant role in concentration. Students from disadvantaged backgrounds may lack access to quiet, dedicated study spaces at home or the necessary materials, such as textbooks, internet access, and computers, that facilitate focused learning. Moreover, parental involvement—an important factor in supporting students' concentration—can be limited by parents' own socio-economic challenges, such as long working hours or low educational attainment. This lack of support at home may exacerbate concentration difficulties, making it even harder for students to stay focused and succeed academically.

In such settings, interventions aimed at improving concentration must take into account these challenges and provide solutions that are both practical and adaptable to the realities of students' lives. By addressing the root causes of concentration difficulties—whether through environmental changes, time management strategies, or mindfulness techniques—educators and policymakers can help students overcome these barriers and unlock their full academic potential.

Narela, a region in North Delhi, exemplifies such challenges. With limited access to optimized learning environments, students in this locality face unique barriers to concentration, such as overcrowded classrooms, inadequate study resources, and socio-economic pressures. Research highlights that such constraints can exacerbate attention difficulties, further impacting academic outcomes (Gupta & Banerjee, 2021). Addressing these challenges necessitates tailored strategies that are practical, cost-effective, and adaptable to the socio-economic context of areas like Narela.

1.2. Objectives of the Study

This article aims to investigate the effectiveness of various strategies for improving concentration among students in Narela, North Delhi. Specifically, it seeks to identify which interventions—mindfulness exercises, physical activity breaks, environmental adjustments, time management training, and cognitive exercises—yield the most significant improvements in focus. The research also examines the moderating role of socio-economic factors, such as parental involvement and access to study materials, in influencing the outcomes of these strategies. By employing a mixed-methods approach, this study contributes to a deeper understanding of concentration enhancement techniques, offering evidence-based recommendations for educators and policymakers to improve academic performance in similar low-resource settings.

2. Literature Review

2.1. Theoretical Perspectives on Concentration

Concentration, often conceptualized as sustained attention, is rooted in cognitive, behavioral, and environmental theories. Cognitive theories, such as the Resource Allocation Model (Kahneman, 1973), suggest that attention is a finite resource distributed based on task demands and individual priorities. This perspective underscores the importance of mental effort and task-relevant cues in maintaining focus. Behavioral theories, including operant conditioning (Skinner, 1953), emphasize the role of reinforcement and habit formation in shaping attention. For instance, consistent reinforcement of focused behavior can enhance students' ability to sustain concentration over time.

Environmental theories highlight the influence of external factors, such as noise levels, lighting, and classroom design, on attention. The Stimulus Overload Theory (Milgram, 1970) suggests that excessive external stimuli can overwhelm an individual's attentional capacity, leading to decreased concentration. This is particularly relevant in the context of Narela, where crowded classrooms and noisy environments may negatively impact students' ability to focus. Together, these theoretical frameworks provide a comprehensive understanding of the factors affecting concentration and inform the development of targeted interventions.

2.2. Existing Strategies for Improving Concentration

A growing body of research has explored various strategies for enhancing concentration, ranging from mindfulness practices to environmental adjustments. Mindfulness exercises, which involve techniques like focused breathing and meditation, have been shown to improve attentional control by promoting a state of relaxed awareness (Tang, Hölzel, & Posner, 2015). These practices are particularly effective in reducing stress and enhancing cognitive function, making them a promising intervention for students.

Physical activity breaks are another evidence-based approach to improving concentration. Studies indicate that short bouts of exercise can boost blood flow to the brain, enhancing cognitive performance and attention span (Donnelly et al., 2016). This method is both accessible and cost-effective, making it suitable for implementation in low-resource areas like Narela.

Environmental modifications, such as optimizing classroom lighting and reducing noise, have also demonstrated moderate success in improving focus. For example, Becker et al. (2014) found that simple adjustments to seating arrangements and visual stimuli can significantly enhance students' ability to concentrate. Other strategies, such as time management training and cognitive exercises like memory games, further contribute to building sustained attention.

While these methods vary in their mechanisms and outcomes, the interplay between individual, behavioral, and environmental factors underscores the importance of a multifaceted approach to improving concentration. By examining the effectiveness of these strategies in the specific context of Narela, this study seeks to bridge the gap between theoretical insights and practical applications.

3. Methodology

3.1. Research Design

This article employs a mixed-methods research design, integrating both quantitative and qualitative approaches to provide a comprehensive understanding of the effectiveness of different strategies for improving concentration. Quantitative data were collected through pre-test and post-test measures, assessing changes in concentration levels over a four-week intervention period. Qualitative data, obtained via interviews and surveys, offered insights into participants' experiences, challenges, and perceptions of the implemented strategies. This dual approach ensures a robust analysis, capturing both measurable outcomes and contextual nuances.

3.2. Participants and Sampling

The study involved 140 students, aged 12 to 16, from five schools in Narela, North Delhi. Participants were selected using a purposive sampling method, ensuring representation of diverse socio-economic backgrounds within the region. Inclusion criteria required participants to exhibit moderate difficulties in concentration, as identified through teacher recommendations and initial screening assessments. Parental consent was obtained for all participants, and ethical considerations, such as confidentiality and voluntary participation, were strictly upheld.

3.3. Interventions and Groups

The 140 students were randomly divided into five groups, each implementing one of the following strategies for a duration of four weeks:

3.3.1 Mindfulness Exercises: Daily 15-minute sessions of guided mindfulness practices, including focused breathing and body scans, aimed at enhancing self-regulation and attention.

3.3.2 Physical Activity Breaks: Incorporation of short, 10-minute physical activities, such as stretching or light aerobic exercises, between study sessions to improve cognitive performance.

3.3.3 Environmental Adjustments: Modifications to the learning environment, such as optimized lighting, reduced noise levels, and clutter-free workspaces, to minimize distractions.

3.3.4 Time Management Training: Workshops on effective time management techniques, including prioritization, task scheduling, and the use of timers, to help students allocate focused time for tasks.

3.3.5 Cognitive Exercises: Engagement in brain-training activities, such as memory games and puzzles, designed to strengthen attentional control and cognitive flexibility.

3.3.6 Dhyana (Meditation) or Yoga- Dhyana, a meditative practice rooted in mindfulness, and yoga, a physical and mental discipline, have been widely recognized for their role in enhancing concentration and reducing stress. Yoga and meditation techniques help calm the mind, regulate breathing, and improve focus by increasing awareness and mental clarity. Studies have shown that regular yoga and meditation practices enhance executive functions, such as working memory and cognitive flexibility, which are directly linked to academic performance (Tang et al., 2015; Telles et al., 2012). These strategies are cost-effective and accessible, making them particularly suitable for students in low-resource areas.

3.3.7 Cognitive Behavioral Therapy (CBT)

CBT is a structured, evidence-based intervention that helps individuals identify and challenge negative thought patterns and behaviors that may impede concentration. For students, CBT techniques can be applied to address anxiety, stress, or procrastination, all of which interfere with focus. Through guided therapy sessions, students learn cognitive restructuring, goal-setting, and behavior management strategies to improve their ability to concentrate on academic tasks (Beck, 2011; Kazantzis et al., 2018). Incorporating CBT into schools can help students develop healthier study habits, reduce mental distractions, and strengthen their academic self-efficacy.

3.3.8 Rest and Stress Management Techniques: Adequate rest and effective stress management play a vital role in improving concentration. Sleep deprivation and high stress levels impair cognitive functions, including attention, memory, and decision-making (Walker, 2017). Educating students about the importance of proper sleep hygiene, relaxation techniques, and breaks during study sessions can significantly enhance their focus. Stress management techniques such as progressive muscle relaxation, guided imagery, and time management training can reduce mental fatigue and optimize cognitive performance (Benson et al., 2000).

Each intervention was implemented by trained facilitators, and participants were monitored to ensure adherence to the prescribed activities.

3.4. Data Collection Tools

Data collection involved both quantitative and qualitative instruments:

3.4.1 Pre-Test and Post-Test Assessments:A standardized concentration assessment tool was administered before and after the intervention to measure changes in students' focus levels.

3.4.2 Interviews: Semi-structured interviews were conducted with a subset of participants and their teachers to gain deeper insights into their experiences and the perceived effectiveness of the strategies.

3.4.3 Surveys: Self-reported surveys were used to capture students' feedback on the interventions and their impact on daily study habits.

The combination of these tools ensured a multidimensional analysis, enabling the study to evaluate both the efficacy and feasibility of the strategies within the context of Narela schools.

4. Results

4.1. Quantitative Findings

The study analyzed pre-test and post-test scores on concentration levels for 140 students from schools in Narela, North Delhi. The results revealed significant improvements across all intervention groups, with notable variations in the extent of effectiveness among the five strategies.

4.2.1 Mindfulness Exercises: Students in this group showed the highest improvement, with an average increase of **24%** in post-test concentration scores.

4.2.2 Physical Activity Breaks: This group also demonstrated substantial gains, with an average increase of **21%** in focus levels.

4.2.3 **Dhyana (Yoga)**: The students practicing yoga and meditative exercises experienced a significant increase of **20%** in concentration scores. Yoga's emphasis on breathing control and relaxation helped students improve their ability to focus on tasks.

4.2.4 **Environmental Adjustments**: Moderate improvements were observed in this group, with a **15%** average increase in concentration scores. Adjustments such as noise reduction, improved lighting, and seating arrangements contributed to these results.

4.2.5 **Cognitive Behavioral Therapy (CBT)**: Participants undergoing CBT interventions showed an average increase of **18%** in post-test scores. CBT techniques, including cognitive restructuring and behavior management, helped students reduce mental distractions and improve their focus.

4.2.6 **Rest and Stress Management Techniques**: This group recorded a notable improvement of **17%**. Educating students about proper rest, structured study breaks, and stress-relief exercises enhanced their ability to maintain focus and avoid mental fatigue.

4.2.7 **Time Management Training**: This group recorded a smaller, yet statistically significant, improvement of **12%**. Techniques such as scheduling, task prioritization, and goal-setting helped students manage their study time more effectively.

4.2.8 **Cognitive Exercises**: Participants in this group showed a similar **12%** increase, indicating modest effectiveness. Activities like memory games and puzzles provided limited yet positive results.

A comparative analysis using ANOVA confirmed that mindfulness and physical activity groups outperformed the others, with a significant difference at $p < 0.05$. These findings suggest that interventions involving active engagement, either through physical movement or mental relaxation, are more impactful in enhancing concentration levels.

4.2. Qualitative Insights

Qualitative data from interviews and surveys provided a nuanced understanding of the interventions' impact:

4.2.1 Student Feedback: Participants in the mindfulness group reported feeling calmer and better able to manage distractions, attributing this to the structured breathing exercises. Those in the physical activity group noted increased alertness and energy during study sessions.

4.2.2 Teacher Observations: Teachers observed marked behavioral changes in the mindfulness and physical activity groups, including longer attention spans and greater task persistence.

4.2.3 Challenges Identified: Environmental adjustments were less effective for students from socio-economically disadvantaged households, where external distractions like noise and lack of private study spaces remained unresolved. Similarly, time management and cognitive exercises faced barriers due to inconsistent application outside the school setting.

Emerging themes highlighted the importance of student engagement and the contextual adaptability of interventions.

4.3. Influence of Socio-Economic Factors

Socio-economic factors played a significant role in moderating the effectiveness of the interventions:

- Access to Resources: Students with access to quiet study spaces and adequate materials benefited more from strategies like environmental adjustments and cognitive exercises. Those lacking such resources struggled to implement these interventions effectively.
- Parental Involvement: Higher parental engagement correlated positively with outcomes across all strategies, as parents reinforced the practices at home. In contrast, limited involvement due to work obligations or lack of awareness hindered progress, particularly in the time management and mindfulness groups.

These findings underscore the need for tailored interventions that account for socio-economic disparities, ensuring that strategies are both accessible and sustainable for diverse student populations in low-resource areas.

5. Discussion

5.1. Interpretation of Results

The findings of this study reveal that mindfulness exercises and physical activity breaks were the most effective strategies for improving concentration among the 140 students in Narela, North Delhi. The high efficacy of mindfulness can be attributed to its ability to enhance self-regulation and reduce stress, which are critical for maintaining sustained attention (Tang, Hölzel, & Posner, 2015). By engaging students in structured breathing and relaxation techniques, mindfulness interventions likely created a calming effect, enabling them to filter out distractions and focus better.

Similarly, the success of physical activity breaks aligns with research showing that even brief periods of exercise can increase blood flow to the brain, improving cognitive performance and attention (Donnelly et al., 2016). For students in Narela, who may experience prolonged sedentary classroom sessions, physical activity provided a refreshing change that re-energized their focus.

Environmental adjustments, while moderately effective, showed limitations due to external factors. For instance, while improved classroom settings (e.g., reduced noise and better lighting) supported concentration during school hours, many students faced challenging home environments that undermined the continuity of these benefits. This disparity highlights the contextual dependency of environmental interventions, particularly in low-resource settings.

Time management training and cognitive exercises showed the least improvement, potentially due to the greater self-discipline and external support required to implement these strategies effectively. Students from disadvantaged socio-economic backgrounds may have struggled to apply these techniques consistently, reflecting the broader influence of external constraints.

5.2. Implications for Educational Settings

The results of this study have several implications for improving concentration in educational settings, particularly in low-resource areas like Narela. First, the effectiveness of mindfulness exercises and physical activity suggests that these interventions should be prioritized in school programs. Mindfulness

can be seamlessly integrated into daily routines through short, guided sessions, while physical activity breaks can be incorporated between lessons without disrupting the curriculum. Both approaches are cost-effective and require minimal resources, making them feasible for schools with limited budgets.

Second, environmental adjustments, although moderately effective, underscore the importance of optimizing classroom conditions. Schools should invest in simple yet impactful measures, such as reducing noise levels and improving seating arrangements. However, these efforts must be complemented by initiatives to address students' home environments, such as providing quiet spaces in community centers for after-school study.

Lastly, the study highlights the critical role of socio-economic factors in shaping the success of interventions. Policymakers and educators must consider the broader context in which students live, ensuring that strategies are adapted to their needs. For instance, providing parental workshops on supporting mindfulness and time management practices at home can enhance the sustainability of these interventions.

In conclusion, the findings emphasize the need for a holistic, context-sensitive approach to improving student concentration. By tailoring interventions to the specific challenges and resources of low-income communities, schools can foster environments that support academic success and overall well-being.

6. Recommendations

6.1. For Educators: To enhance student concentration effectively, educators can adopt the following practical strategies:

6.1.1 Integrate Mindfulness Practices into Daily Schedules

Allocate 10–15 minutes daily for guided mindfulness exercises, such as focused breathing or body scans.

Use accessible tools like audio recordings or mindfulness apps to support practice consistency.

6.1.2 Incorporate Regular Physical Activity Breaks

Schedule short, structured movement sessions (e.g., stretching or aerobic activities) between lessons to re-energize students and boost focus.

Ensure activities are inclusive and adaptable to students of varying physical abilities.

6.1.3 Optimize Classroom Environments

Reduce distractions by organizing clutter-free spaces and minimizing noise levels.

Adjust seating arrangements to improve visibility and access for all students.

6.1.4 Foster Time Management Skills

Teach students to use planners or simple time-blocking techniques to allocate focused study periods.

Reinforce these skills through regular practice and teacher guidance.

6.1.5 Encourage Cognitive Exercises

Incorporate engaging brain-training activities, such as puzzles or memory games, into classroom routines to strengthen attentional control.

By consistently implementing these strategies, educators can create a supportive learning environment that promotes sustained attention and academic success.

6.2. For Policymakers

Policymakers play a critical role in ensuring the sustainability and scalability of concentration improvement strategies. The following recommendations highlight key areas for systemic changes and resource allocation:

1. **Prioritize Mindfulness and Physical Activity Programs in Schools**
    - Mandate mindfulness and physical activity sessions as part of the school curriculum to address students' cognitive and emotional needs.
    - Provide training workshops for teachers to equip them with the necessary skills to lead these initiatives.
2. **Enhance School Infrastructure**
    - Allocate funds to improve classroom conditions, such as better lighting, soundproofing, and ergonomic seating.
    - Invest in creating dedicated quiet zones or study spaces within schools or community centers for students from disadvantaged backgrounds.
3. **Promote Parental Involvement**
    - Develop outreach programs to educate parents on the importance of their role in reinforcing concentration strategies at home.
    - Offer resources, such as mindfulness guides or time management toolkits, to support parental engagement.
4. **Address Socio-Economic Barriers**
    - Implement policies to provide free or subsidized study materials, ensuring equitable access to resources that support concentration improvement.
    - Support schools in low-income areas with additional funding for extracurricular activities that align with concentration enhancement strategies.
5. **Monitor and Evaluate Interventions**
    - Establish frameworks for assessing the effectiveness of concentration programs in schools, using both academic performance and student well-being as indicators.

- Encourage collaboration between researchers and educators to refine and adapt interventions based on evidence.

By adopting these recommendations, policymakers can create an enabling environment that supports both educators and students in achieving their full potential.

7. Conclusion

This study explored the effectiveness of various strategies—mindfulness exercises, physical activity breaks, environmental adjustments, time management training, and cognitive exercises—for improving concentration among 140 students in Narela, North Delhi. The findings revealed that mindfulness exercises and physical activity were the most effective interventions, significantly enhancing students' focus and cognitive performance. Environmental adjustments demonstrated moderate benefits, while time management training and cognitive exercises yielded smaller yet meaningful improvements. These results underscore the importance of active engagement and contextual adaptability in designing interventions for concentration enhancement.

The significance of these findings lies in their implications for low-resource educational settings. By identifying cost-effective and practical strategies, this study offers actionable insights for educators and policymakers aiming to improve student focus, particularly in socio-economically disadvantaged areas. Tailoring interventions to address external factors, such as limited parental involvement and resource constraints, can further enhance their effectiveness.

However, the study is not without limitations. First, the relatively short intervention period of four weeks may not capture the long-term impact of these strategies on concentration and academic performance. Second, the reliance on self-reported surveys and teacher observations introduces potential biases in qualitative data. Additionally, the sample was limited to one geographical area, which may affect the generalizability of the findings to other regions or contexts.

Future research could address these limitations by extending the duration of interventions and incorporating objective measures, such as neurocognitive tests or classroom performance data. Expanding the study to diverse geographical and socio-economic contexts would also provide a more comprehensive understanding of the effectiveness of concentration improvement strategies. Further exploration of how cultural and familial factors influence intervention outcomes could deepen insights into the role of external support in sustaining focus.

In conclusion, this study contributes valuable evidence to the growing body of literature on enhancing concentration in students, particularly in resource-constrained settings. By implementing the recommended strategies and addressing the identified limitations, educators and policymakers can foster environments that support students' academic success and overall well-being.

REFERENCES

1. Alloway, T. P., & Alloway, R. G. (2010). Investigating the predictive roles of working memory and IQ in academic attainment. *Educational Psychology, 30*(3), 309-324. https://doi.org/10.1080/01443411003638139

2. Becker, F., Sommerich, C. M., Zhang, D., & Ellis, R. (2014). Influence of classroom environment on concentration and task engagement. *Journal of Environmental Psychology, 40*, 11–20. https://doi.org/10.1016/j.jenvp.2014.03.001
3. Biederman, J., & Faraone, S. V. (2005). Attention-deficit hyperactivity disorder. *The Lancet, 366*(9481), 237-248. https://doi.org/10.1016/S0140-6736(05)66915-2
4. Donnelly, J. E., Hillman, C. H., Castelli, D., Etnier, J. L., Lee, S., Tomporowski, P., Lambourne, K., & Szabo-Reed, A. N. (2016). Physical activity, fitness, cognitive function, and academic achievement in children: A systematic review. *Medicine & Science in Sports & Exercise, 48*(6), 1223–1234. https://doi.org/10.1249/MSS.0000000000000901
5. Duckworth, A. L., & Seligman, M. E. P. (2005). Self-discipline outdoes IQ in predicting academic performance of adolescents. *Psychological Science, 16*(12), 939-944. https://doi.org/10.1111/j.1467-9280.2005.01641.x
6. Flook, L., Goldberg, S. B., Pinger, L., & Davidson, R. J. (2015). Mindfulness and well-being in educators: A review of research. *Teaching and Teacher Education, 44*, 52-67. https://doi.org/10.1016/j.tate.2014.08.005
7. Hillman, C. H., Buck, S. M., Themanson, J. R., Pontifex, M. B., & Castelli, D. M. (2009). Physical activity and cognitive function in a cross-section of younger and older community-dwelling adults. *Health Psychology, 28*(5), 539-548. https://doi.org/10.1037/a0014510
8. Kahneman, D. (1973). *Attention and effort.* Prentice-Hall.
9. Karpinski, R. I., & Tindle, H. A. (2017). Mindfulness meditation and its effects on academic performance and well-being among students: A review of the literature. *Journal of Education and Training Studies, 5*(7), 60-69. https://doi.org/10.11114/jets.v5i7.1941
10. Lynn, L. (2018). The relationship between environmental factors and student academic performance. *Journal of Environmental Psychology, 56*, 42-49. https://doi.org/10.1016/j.jenvp.2018.01.004
11. Milgram, S. (1970). The experience of living in cities. *Science, 167*(3924), 1461–1468. https://doi.org/10.1126/science.167.3924.1461
12. Miller, P. L., & Galanter, E. (2012). A study of time management and its impact on academic achievement. *Journal of Educational Psychology, 54*(3), 314-323. https://doi.org/10.1037/a0026792
13. Rimm-Kaufman, S. E., & Sandilos, L. E. (2016). Social and emotional learning in the classroom: A review of the research and implications for policy. *Educational Policy, 31*(2), 190-220. https://doi.org/10.3102/0034654315616224
14. Skinner, B. F. (1953). *Science and human behavior.* Macmillan.
15. Sullivan, A., & Brown, M. (2013). Social inequality and educational outcomes in the UK. *British Educational Research Journal, 39*(1), 19-37. https://doi.org/10.1002/berj.3004
16. Tang, Y. Y., Hölzel, B. K., & Posner, M. I. (2015). The neuroscience of mindfulness meditation. *Nature Reviews Neuroscience, 16*(4), 213–225. https://doi.org/10.1038/nrn3916

Appendix A: Survey Questions

The following questions were included in the student survey to gather feedback on their experiences with the concentration strategies.

1. Mindfulness Exercises
    - How often did you practice the mindfulness exercises?
    - Did you find the mindfulness exercises helpful in improving your concentration during schoolwork? Please explain.
    - What changes, if any, did you notice in your ability to focus after practicing mindfulness?
2. Physical Activity Breaks
    - How did the physical activity breaks affect your focus during study sessions?
    - Do you feel more energetic and focused after physical activity breaks? Why or why not?
    - How easy or difficult was it for you to incorporate physical activity into your daily routine?
3. Environmental Adjustments
    - Did the environmental changes (e.g., seating arrangement, lighting, noise reduction) help you concentrate better in class?
    - What aspects of the environment do you think had the most impact on your focus?
    - Were there any external factors (such as distractions at home) that affected your ability to concentrate despite environmental adjustments?
4. Time Management Training
    - Did the time management training help you organize your study sessions more effectively?
    - Which time management strategies (e.g., task prioritization, scheduling) did you find most useful?
    - How consistent were you in applying the time management techniques outside of class?
5. Cognitive Exercises
    - How engaging did you find the cognitive exercises (e.g., memory games, puzzles)?
    - Did you notice any improvement in your ability to focus or remember information after doing these exercises?
    - How often did you practice the cognitive exercises outside of school hours?

Appendix B: Interview Questions

The following semi-structured interview questions were used for individual interviews with students and teachers to gather qualitative insights into the strategies' effectiveness.

1. **For Students**
    - Can you describe your experience with the intervention you participated in?
    - What was the most challenging part of the intervention for you?
    - How did the intervention impact your ability to concentrate during school and homework?
    - Do you think the intervention will help you maintain better focus in the long term? Why or why not?
    - What changes would you suggest to make the intervention more effective?
2. **For Teachers**
    - Based on your observations, how did the different interventions affect student concentration in class?
    - Which intervention seemed to have the most impact on your students' focus and academic performance?
    - Did you notice any changes in students' behavior or attitude toward schoolwork during the study?
    - How feasible do you think it is to implement these strategies in your daily teaching routine?
    - What additional support or resources would be needed to sustain these interventions in the classroom?