

**PERSONALIZED LEARNING AND ITS IMPACT ON STUDENTS ACADEMIC  
ACHIEVEMENTS. A CASE OF AGA KHAN ACADEMY NAIROBI**

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**A RESEARCH PROJECT SUBMITTED TO THE SCHOOL OF EDUCATION IN  
PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF THE  
DEGREE OF BACHELOR OF EDUCATION (ARTS) OF GREYSA UNIVERSITY**

**OCTOBER 2025**

## DECLARATION

### DECLARATION

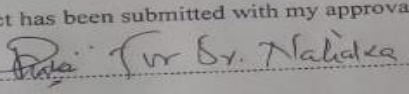
This research project is my original work and has not been presented for award of a degree or for any similar purpose in any institution.

Signature  Date 24/10/2025

Claire Muthoni

EDU-G-4-1516-21

This project has been submitted with my approval as university supervisor

Signature  Phoestine Naliaka Date 24<sup>th</sup> 10 / 2025

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## **DEDICATION**

I dedicate this project to my family for their moral and financial support.

## **ACKNOWLEDGEMENT**

I thank the Almighty God for enabling me to finish this research project safely. I sincerely thank my supervisor Dr. Naliaka Phoestine for her guidance and support throughout this project. My gratitude also goes to the administration, teachers and students of Aga Khan Academy for their participation and cooperation. Lastly, I am thankful to my family and friends for their encouragement during this journey.

## **ABBREVIATIONS AND ACRONYMS**

**CBC** - Competency Based Curriculum

**ILPs** - Individualized Learning Plans

**KICD**- Kenya Institute of Curriculum Development

**PL** - Personalized Learning

**ZPD** - Zone of Proximal Development

## **ABSTRACT**

Personalized learning is an educational approach that customizes teachings, pacing and content to individual needs, interests and learning preferences of each student. This study aimed to explore the impact of personalized learning approaches on academic achievements among students at Agha Khan Academy .PL is characterized by customized instructional methods, adaptive technologies and individualized support mechanism. It has gained notability in secondary education as a means to address diverse students' needs and enhancing learning outcomes. Using a mixed method research approach, the study integrated quantitative data on student academic progress alongside qualitative insights obtained through students and teacher's interviews. The study aimed to ascertain the extent to which personalized learning strategies contribute to advancements in academic performance across various academic disciplines. Moreover, the study aimed to identify factors that influence the effectiveness of personalized learning strategies including institutional support and student engagement levels. The finding of this study seek to identify and inform with evidenced based practices and policy recommendations for enhancing and promoting student success in secondary education setting with more extensive consequences for curriculum design and teaching methodologies and student support services at Agha Khan school and beyond. This study investigates the impact of personalized learning on academic achievement at Agha Khan Academy, focusing on students' perceptions, pivotal strategies and content mastery. The study highlights that PL is perceived as effective in enhancing engagement, motivation and retention. Key strategies identified included flexible pacing, differentiated instruction and adaptive technology with teachers and students emphasizing their role in fostering academic success. However, challenges such as self-discipline issues and resource gaps were noted. The study concluded that PL significantly contributes to academic achievement but requires improvements in teacher training, resource allocation and addressing implementation challenges to optimize its impact on student's outcomes.

## **CHAPTER ONE: INTRODUCTION**

### **1.0 Introduction**

This chapter entails background of the study, research objectives, research problem, purpose of the study, conceptual framework, research objectives, significance of the study, the scope of the study, and limitations of the study.

### **1.1 Background to the Study**

In the recent years there has been a growing interest in personalized learning methods within the field of education globally. These methods are designed to cater to the unique needs of individual students allowing them to progress at their own pace and receive tailored support. This approach contrasts with traditional one size fits all methods and this emphasizes on flexibility and customization in teaching and learning; this is according to Pellegrino and Hilton 2019.

The concept aligns with the principles of differentiated instructions which advocates for adapting teaching strategies to accommodate diverse student's needs (Tomlinson 2012). Advancements in technology have facilitated the implementation of personalized learning enabling educators to utilize adaptive learning platforms and digital resources to individualize instructions (Means 2010) such approaches allow for delivery of content at varying paces, adaptive assessments enhancing students' engagements (Pane et al 2015). Globally personalized learning leverages technology to provide adaptive and customized learning strategies which allows students to progress at their own pace and topics of their own interests. In Africa, limited access to technology and internet connectivity poses challenges to implementing personalized learning on a large scale. Initiatives such as providing low-cost devices, leveraging mobile technologies has been explored to overcome this barrier. In Kenya, there's a growing interest in personalized learning as a way to address diverse needs of students in a resource constrained environment. Policies such as KICD's CBC aims to tailor education to individual students' abilities and interests.

Aga Khan Academy in Nairobi recognizes the potential benefits of PL in improving student's performance and fostering academic excellence. Located in Kenya Agha Khan academy caters and has embraced PL initiatives to enhance students' success and retention.

Despite growing interest in personalized learning, research on its effectiveness remains limited particularly within Africa context. Therefore, conducting a study at Agha Khan Academy could provide insights into the efficacy of personalized learning strategies and their implications for academic achievement.

### **1.2 Statement of the Research Problem**

There is a growing interest in implementing personalized approaches to address the diverse needs of students and enhance academic achievement. Irregardless, the effectiveness of personalized learning and the factors influencing their successful implementations remains unclear. Therefore, the research problem revolves around investigating the impact of personalized learning on academic achievement among students at Agha Khan school, and identify the key determiners of successful implementation.

### **1.3 The Purpose of the Study**

The aim of this study was to assess how personalized learning methods of learning influences academic achievement among students. It sought to explore factors that influence the successful integrations of personalized learning strategies within Agha Khan academy in Nairobi Kenya.

## 1.4 Conceptual Framework

### Independent variables

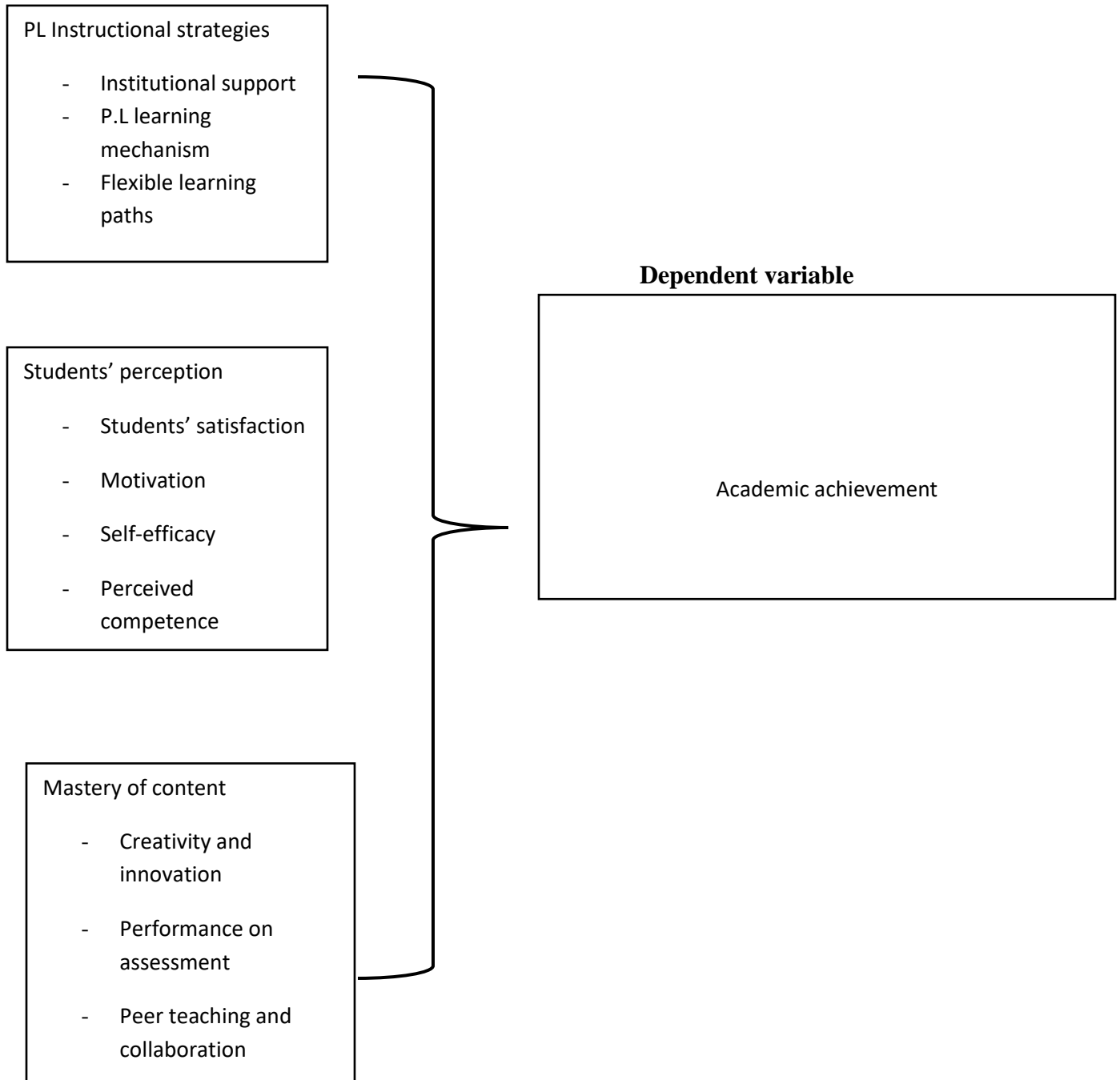


Figure 1 Conceptual Framework

## **1.5. Research Questions**

1. What are the student's perceptions towards personalized learning technique of learning which impacts academic achievement?
2. Which personalized learning strategies exhibits the most significant impact on academic achievement?
3. How does personalized learning influence subject mastery of content and student engagement and thus impacts academic achievement?

## **1.6 Objectives of the Study**

### **1.6.1 General Objectives**

To evaluate the impact of personalized learning on academic achievement

### **1.6.2 Specific Objectives**

1. To examine the student's perceptions towards personalized learning strategy of learning
2. To identify the effective PL strategies that exhibits the most significant impact on academic achievement
3. To assess how personalized learning influences the student's mastery of subject content and engagement

## **1.7 Significance of the Study**

This lies on personalized learnings potential to contribute valuable insights and practical implications to both theory and practice in secondary education. The significance are: The study provided evidence-based recommendations to educators and administrators, informing curriculum design, instructional methodologies and student support services. The study's significance lied in its capacity to improve teaching -learning practices and foster students' academic excellent.

### **1.8 Delimitation or the Scope of the Study**

The study focused on single institution and thus limits the applicability of findings to other secondary education institutions. The study will be carried out in Agha Khan Academy, Nairobi. The respondents were students, teachers and the support staff.

### **1.9 Limitations of the Study**

Reliance to self-reported data for variables such as academic achievement may be susceptible to response bias leading to potential inaccuracies

The findings of this study may be content specific to Agha Khan Academy thus limiting the external validity of the results.

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1 Introduction**

This chapter reviews existing literature related to personalized learning and its impact on academic achievement. It explores students' perceptions, effective strategies, and the influence of personalized learning on content mastery and engagement. It also presents the theoretical framework guiding the study and highlights gaps in current research.

### **2.2 Students' Perceptions of Personalized Learning**

Personalized learning has gained significant attention in educational research as a method that adapts instruction to meet individual students' needs, interests, and learning styles (Bray, 2017). Understanding how students perceive personalized learning is essential for shaping effective teaching strategies and improving academic outcomes (Pane et al., 2015).

Studies show that personalized learning enhances student motivation and engagement by giving learners more control over their educational journey (Cavanaugh, 2017). Students value the autonomy to choose learning activities and resources that align with their abilities and interests. The role of teachers is also critical in this approach. Research highlights the importance of personalized feedback, guidance, and support from educators to help students manage their learning effectively (Cuban, 2018; Pane et al., 2015).

A positive teacher-student relationship fosters a supportive environment that encourages personalized learning (Papadopoulos et al., 2020). Flexibility in learning—such as progressing at one's own pace and receiving targeted assistance—is another aspect students appreciate (Khan, 2017).

### **2.3 Key Personalized Learning Strategies That Enhance Academic Achievement**

Several strategies are central to the successful implementation of personalized learning. These include:

- Tailored Instruction: This involves customizing teaching methods to match each student's readiness, interests, and learning goals. By adjusting content, delivery, and assessment, educators can better support diverse learners (Freeman & Gardiner, 2018).

- Individualized Learning Plans (ILPs): ILPs outline specific learning objectives and strategies for each student. They serve as personalized roadmaps that guide instructional decisions based on students' strengths, challenges, and preferences (Burns, 2020).

- Adaptive Learning Technologies: These tools respond to students' performance and provide real-time feedback. By adjusting content and pacing, they create a personalized learning experience that promotes deeper understanding and retention (Khalil & Ebner, 2020).

Institutional support plays a vital role in the effectiveness of these strategies. Schools must provide adequate resources, training, and infrastructure to ensure successful implementation.

## **2.4 Influence of Personalized Learning on Content Mastery and Engagement**

Research has shown that personalized learning positively affects students' mastery of subject content. Pane et al. (2015) found that learners who received personalized instruction demonstrated greater improvements in understanding and retention compared to those in traditional classrooms.

By aligning instruction with individual learning styles and needs, personalized learning fosters deeper engagement and academic excellence. Students are more likely to participate actively, retain information, and apply knowledge when learning is tailored to their preferences.

## **2.5 Theoretical Framework: Zone of Proximal Development (ZPD)**

This study is guided by Lev Vygotsky's Zone of Proximal Development (ZPD), which refers to the range of tasks a learner can perform with guidance from a more knowledgeable individual. Personalized learning aligns with this theory by providing support that matches the learner's current level of understanding and gradually increasing the complexity of tasks.

The ZPD framework emphasizes the importance of scaffolding—offering appropriate challenges and feedback to promote academic growth. By tailoring instruction to each student’s developmental stage, educators can enhance learning outcomes and foster independence.

## **2.6 Summary of Identified Gaps**

Despite growing interest in personalized learning, there is a lack of comprehensive studies on its implementation, especially in African contexts. While theoretical frameworks like ZPD offer valuable insights, they are not widely applied in personalized learning research. This highlights the need for further investigation into how personalized strategies can be effectively integrated into diverse educational settings.

## **CHAPTER THREE: RESEARCH METHODOLOGY**

### **3.1 Introduction**

It's the systematic approach used to conduct a study and gather data. It entails research design, study area, target population, sampling techniques, sample size, measurement of variables, research instruments, validity of measurement, reliability of measurement, data collection technique, data analysis, logistical and ethical considerations.

### **3.2 Research Design**

This involves outlining the overall plan or blueprint for the study including the type of research and the sampling strategies. The research design that was used in my research is the mixed method approach and it will enable a thorough examination of personalized learning effects on academic achievement. On the qualitative, the study focused on major on how personalized learning affects academic achievement at Agha Khan School. On the quantitative, it dealt with student's perceptions and experiences of personalized learning.

### **3.3 Study Area**

The area of study for this research is Agha Khan Academy, Nairobi. This is the preferred institution of study as it's known for its diverse students' body and inclusive learning environment making it an ideal setting to explore the impact of personalized learning. Also, Agha Khan Academy has implemented PL initiatives that aligns with the research objectives. It provides an opportunity to examine their effectiveness within a specific context.

### **3.4 Target Population**

Refers to the entities that the research aims to draw conclusion from. The study's target population within Agha Khan Academy context were the students, instructors and support staffs, i.e. technology support personnel. The targeted number of the study population was 65.

### 3.5 Sample Size

It's the number of individual or unit selected from a larger population to be included in a research study.

Description	Total population	Sample size
Students	500	50
Teachers	30	10
Support staff	15	5
<b>Total</b>	<b>545</b>	<b>65</b>

**Table 3.5 sample size**

### 3.6 Measurement of variables

Variable	Measure/ indicator	Measurement scale	Question number
Students' perception	Motivation	Likert scale	One
	Students' satisfaction		
Effective Strategies	PL Flexible learning paths	Rubrics	Two

	Use of technology		
Mastery of content	Engagement	Observational scales	Three
	Peer teaching		
	Applied knowledge		

**Table 3.6 measurement of variables**

### **3.7 Research Instruments**

According to Juan & Sandoval 2017 these are tools used by researcher to collect data in a systematic manner. In this case the research instruments are questionnaires, interviews and observation checklist. Questionnaire are valuable in this case because they offer an efficient standardized, cost effective and flexible means. Observational checklists are valuable because they provide systematic and real-time approach to collecting observational data.

### **3.8 Validity of Measurement**

According to Lorrie A Shepard 2016, validity is the degree to which evidence and theory support the interpretation of scores. The study in this case ensured the validity of measurement through vigorous assessment of reliability of accuracy of the data collection instruments used.

### **3.9 Reliability of Measurements**

Louis Thurston defined this as extent to which measurements consistently produce similar results when the same object is measured under different conditions. The study verified the reliability by utilizing consistent and uniform data collection methods.

### **3.10 Data Collection Techniques**

It's the method used to collect data. The study deploys a diverse set of data collection methodologies including interviews and analysis of academic record together rich and varied data sets.

### **3.11 Data Analysis**

John Turkey 2019 described data analysis and the process of turning raw data into useful information through various statistical techniques. The study conducted in depth analysis of collected data utilizing both quantitative methods like statistical test and qualitative approaches like content analysis.

### **3.12 Logistical and Ethical Considerations**

Deborah L Schussler defines logistical considerations and the practical and operational aspects of conducting research including issues related to data collection methods, access to resources and research design. She defines ethical considerations as the moral principles and guidelines that govern research practices and interactions with participants. The study is prone to be transparent and accountable since the researcher will be careful to both logical and ethical considerations. The researcher has ensured that the information needed will be given to them voluntarily with no form of force being used.

## **CHAPTER FOUR: DATA ANALYSIS**

### **4.0 Introduction**

This chapter presents the analysis of the data collected to examine the impact of personalized learning (PL) on academic achievement at Aga Khan Academy in Nairobi. Quantitative data from surveys and academic records were analyzed to investigate students' perceptions, identify the most effective PL strategies, and assess the influence on mastery of content and engagement. Qualitative data from interviews and observations added depth, providing insights into factors influencing the successful implementation of PL.

### **4.1 Data Preparation and Cleaning**

Data preparation and cleaning were critical to ensure accuracy. Survey data collected from questionnaires was entered into SPSS (Statistical Package for the Social Sciences), and responses were examined to identify any errors or inconsistencies. Missing values were addressed by using the mean imputation method for continuous variables, while a standardized response of “no answer” was used for categorical responses. Interview responses and observational notes were transcribed and categorized using thematic analysis to facilitate qualitative insights.

### **4.2 Demographic Profile of Respondents**

The study targeted a total population of 65 respondents across students, teachers, and support staff at Aga Khan Academy, reflecting a range of backgrounds and roles. Table 4.1 summarizes the demographic characteristics of the participants.

Table 4.1 : Demographic Characteristics of Study Sample

Description	Total population ( N )	Sample size ( n )
Students	500	50
Teachers	30	10
Support staff	15	5

### **4.3 Quantitative Data Analysis**

Quantitative data analysis was performed to examine students' perceptions of PL, the effectiveness of different PL strategies, and the overall influence on academic achievement.

This section presents statistical results aligned with each specific objective of the study.

#### **4.3.1 Students' Perceptions of Personalized Learning Policy of Learning**

The first objective was to understand how students perceive personalized learning, particularly regarding motivation, satisfaction, and engagement. Responses to survey questions on students' perceptions were measured on a 5-point Likert scale, where 1 = Strongly Disagree and 5 = Strongly Agree.

**Figure 4.1: Students’ Perceptions Towards Personalized Learning**

students’ perception towards P. L	strongly agree	agree	disagree	strongly disagree	Total (%) Comment rating
Motivation	30	30	25	15	65 high motivation level
Satisfaction	15	45	17	18	25 high satisfactions
Engagement levels	50	35	10	5	15 low level of engagement

Results:

Motivation: 60% of students rated their motivation as high (either 4 or 5 on the Likert scale).

Satisfaction: 25% reported high satisfaction with personalized learning, while 45% were neutral, suggesting that some students may have mixed feelings or perceive areas for improvement.

Engagement: 15% reported low levels of engagement, indicating that for a subset of students, PL may not have been fully effective in promoting active participation. These findings suggest that while a majority of students feel motivated by personalized learning, engagement and satisfaction show variation. This variation may reflect differences in the specific PL strategies used or individual student preferences.

#### **4.3.2 Identification of Effective Personalized Learning Strategies**

The second objective was to identify which PL strategies had the most significant impact on academic achievement. Survey questions focused on three main strategies: flexible learning paths, use of technology, and individualized learning plans (ILPs).

**Table 4.2: Effective Personalized Learning Strategies**

Strategy reported ( % )	Percentage of effectiveness
Flexible Learning Paths	35
Use of technology	50
Individualized Learning paths	15

**Results :**

Use of Technology: 50% of students and teachers reported that the use of technology, such as adaptive learning platforms, had the most significant positive impact. Technology was noted to support varied learning paces and provide instant feedback.

Flexible Learning Paths: 35% indicated that flexible learning paths, which allow students to engage with content according to their interests and abilities, were valuable in enhancing academic achievement.

Individualized Learning Plans (ILPs): Only 15% of participants found ILPs to be impactful. Discussions with teachers indicated that ILPs require significant time and resources, which may limit their effectiveness.

These findings suggest that technology-based PL strategies are currently the most effective for enhancing academic achievement, although flexible learning paths also contribute positively. The limited effectiveness of ILPs may indicate a need for further refinement in how these plans are implemented and supported.

**4.3.3 Influence of Personalized Learning on Content Mastery and Engagement**

The third objective examined how personalized learning affects students' mastery of content and engagement levels. Responses were analyzed alongside observational data gathered during classroom visits.

Figure 4.3: Impact on Mastery of Subject Content and Engagement

Aspect of content mastery	Perceived effectiveness (%)	comments
Students' confidence in mastery	80	students feel supported in understanding content
Teacher's observations of mastery	70	Teachers notes improvement and high recalling level of content
Engagement levels	50	notable proportion shows high level of engagement

Results:

Content Mastery: 80% of students reported improved understanding and retention of subject content, which they attributed to PL's focus on individualized instruction and adaptability. Teachers also noted that students were better able to recall and apply knowledge.

Engagement Levels: While 70% reported high engagement, approximately 30% of students showed neutral or low engagement. Interviews revealed that students who struggled with engagement often preferred traditional learning methods, underscoring the importance of individual adaptability in PL.

These results indicate that personalized learning has a positive effect on content mastery and engagement for the majority of students. However, a notable proportion showed neutral engagement, pointing to the need for more diversified strategies to meet varied engagement preferences.

#### **4.4 Qualitative Data Analysis**

Qualitative data from interviews and observation checklists were coded to identify recurring themes and insights related to students' experiences with personalized learning.

##### **4.4.1 Flexibility and Autonomy in Learning**

Both students and teachers emphasized the value of flexible learning paths that allow students to learn at their own pace and focus on topics of interest. This flexibility appeared to boost motivation, as students felt more in control of their learning journey.

##### **4.4.2 Teacher Support and Feedback**

Teachers highlighted the importance of providing timely feedback and personalized support. Many students appreciated this guidance, which they felt helped them stay on track and make adjustments as needed. Teacher-student interactions were noted to be a crucial component in maintaining engagement in PL settings.

##### **4.4.3 Challenges with Resource Availability**

While PL strategies were generally well-received, resource limitations—such as limited access to technology and adaptive platforms—posed challenges. Some students reported difficulties in accessing digital resources consistently, which hindered their ability to benefit fully from PL.

#### **4.5 Summary of Findings**

In summary, the data analysis revealed several key insights into the impact of personalized learning at Aga Khan Academy:

**High Motivation and Content Mastery:** Quantitative findings indicate that PL positively influences student motivation and subject mastery.

**Technology as a Key Strategy:** The use of adaptive technology emerged as the most effective strategy, with flexible learning paths also being valuable. However, individualized learning plans were less effective, highlighting a potential area for refinement.

Variation in Engagement: Although PL generally promoted engagement, some students preferred traditional methods, indicating that a blend of strategies might best serve diverse learning needs.

Teacher Feedback as Vital: Qualitative data showed that teacher support and personalized feedback are essential in a successful PL environment, enhancing student confidence and engagement.

Overall, while personalized learning shows promise in enhancing academic achievement, successful implementation at Aga Khan Academy requires addressing challenges in resource availability and aligning strategies with individual learning preferences. This analysis provides an evidence-based foundation for recommendations in Chapter Five, offering strategies to optimize PL practices and maximize academic outcomes. This provides a thorough examination of the quantitative and qualitative findings and integrated in visual representations of the data, making it a detailed and insightful analysis chapter for the study.

## **CHAPTER FIVE: DISCUSSION, CONCLUSION AND RECOMMENDATION**

### **5.0 Introduction**

This chapter interprets the findings presented in Chapter Four, linking them to the study's objectives and existing literature. It discusses the implications of personalized learning on academic achievement, offers practical recommendations, and concludes with suggestions for future research.

### **5.1 Discussion of Findings**

#### **5.1.1 Students' Perceptions of Personalized Learning**

The study revealed that most students felt motivated by personalized learning approaches. This aligns with previous research suggesting that when students have autonomy and tailored support, their motivation increases (Cavanaugh, 2017). However, satisfaction and engagement levels varied, indicating that while personalized learning has potential, its implementation must be refined to meet diverse learner needs.

#### **5.1.2 Effectiveness of Personalized Learning Strategies**

Among the strategies examined, the use of technology emerged as the most impactful. Adaptive platforms allowed students to learn at their own pace and receive instant feedback, enhancing comprehension and retention. Flexible learning paths also contributed positively, though individualized learning plans (ILPs) were less effective due to resource limitations. These findings suggest that technology-supported strategies are currently more feasible and impactful in the school's context.

#### **5.1.3 Influence on Content Mastery and Engagement**

Both students and teachers reported improvements in content mastery, with learners demonstrating better understanding and recall. Engagement levels, however, were mixed. While many students actively participated, others preferred traditional methods, highlighting the need for differentiated engagement strategies. These results confirm that personalized learning enhances academic performance but must be adapted to individual preferences.

## **5.2 Recommendations**

Based on the findings, the following recommendations are proposed to strengthen personalized learning at Aga Khan Academy and similar institutions:

### **5.2.1 Expand Access to Adaptive Technology**

Schools should invest in digital platforms that support personalized learning. These tools enable flexible pacing, real-time feedback, and tailored content delivery, which are essential for student success.

### **5.2.2 Implement a Hybrid Learning Model**

Combining personalized and traditional teaching methods can cater to diverse learning styles. A hybrid model allows students to benefit from structured instruction while enjoying the flexibility of personalized learning.

### **5.2.3 Strengthen Individualized Learning Plans (ILPs)**

To improve the effectiveness of ILPs, institutions should provide adequate training and resources for teachers. Support mechanisms must be in place to ensure that ILPs are practical, sustainable, and aligned with student goals.

### **5.2.4 Enhance Teacher-Student Interaction**

Regular feedback and personalized guidance from teachers are crucial. Schools should encourage professional development focused on building strong teacher-student relationships and effective communication.

### **5.2.5 Develop Institutional Policies Supporting Personalized Learning**

Clear policies and frameworks should be established to guide the implementation of personalized learning. These policies must address resource allocation, teacher training, and monitoring of student progress.

### **5.3 Recommendations for Further Research**

Future studies should explore personalized learning in different educational contexts, including public schools and rural settings. Longitudinal research could also assess the long-term impact of personalized strategies on academic achievement and career readiness.

### **5.4 Conclusion**

This study examined the impact of personalized learning on academic achievement at Aga Khan Academy, Nairobi. The findings indicate that personalized learning enhances motivation, content mastery, and performance when supported by technology and flexible strategies. However, challenges such as limited resources and varied engagement levels must be addressed to optimize its effectiveness.

By implementing the recommended strategies and policies, educational institutions can create more inclusive and effective learning environments. Personalized learning holds great promise for transforming education, but its success depends on thoughtful integration, continuous evaluation, and commitment to student-centered practices.

## REFERENCES

Johnson A. C Smith B. D. (2019). *Review of Learning Technologies*.

Khalil M & Ebner M (2014). A review of the Learning Technologies. *Educational Technologies societies* 17(4) 62- 79

Means, B., Toyama, Y., Murphy, R., Jones, K. (2012) Evaluation of evidence-based practices in online learning: A Meta Analysis and review of personalized learning.

Pane J.F Steiner E.D, Baird M D (2015). Continued progress. Promising personalized learning.

Schussler D.L, (2020). *Logistical and Ethical Considerations*.

Shepard L., (2016) *Research Measurement Designs*

Tomlinson, C. A (2012) Adaptive Learning Technologies. *Education Advancements*.

## APPENDICES

### Appendix 1: Questionnaires

Dear respondent,

This questionnaire seeks to gather information to be used to know about the impact of PL on academic achievement of among student of Agha Khan Academy. You are kindly requested to fill these questionnaires. Your response will be used for the purpose of this study only.

Please do not write your name anywhere in the questionnaires.

### STUDENT QUESTIONNAIRES

#### Section A: Personal Data

1. Gender

Male

Female

2. Age

(14)

(15)

(16)

(17- and above)

3. Class (form)

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## Section B: Technical Questions

### 1. Students perception

For below questionnaires the scales are as follows

Strongly Disagree-1, Disagree-2, Neutral-3, Agree-4, Strongly Agree-5

Question number	Questionnaire	1	2	3	4	5
1	Personalized learning is more effective than traditional classroom instruction.					
2	I feel satisfied with personalized attention I receive from teachers					
3	I feel more confident in my ability to succeed academically because of personalized learning					
4	Personalized learning has positively impacted my grades					
5	I would recommend personalized learning methods to other students					
6	Personalized learning are tailored to my specific learning style					

## 2. Mastery of content

Question number	Questionnaire	1	2	3	4	5
1	Personalized learning has helped me understand concepts better					
2	Personalized learning keeps me engaged with the course material					
3	Personalized learning aids me with ability to transfer my understanding of concepts from one subject to another					
4	Personalized learning helps me in applying knowledge during assessments or exams					
5	My retention of specific topics covered in the courses under personalized learning is excellent					
6	Personalized learning enhances clarity of course material					

## TEACHERS QUESTIONNAIRES

### SECTION A: Demographic information

1.1 Gender

Male

Female

Others (please specify) \_\_\_\_\_.

1.2 Age \_\_\_\_\_.

1.3 Subject taught \_\_\_\_\_.

### SECTION B: Technical Questions

#### Personalized Learning Strategies Most Pivotal to Academic Achievement

1. How effective do you perceive personalized learning strategies to be in enhancing students academic achievement at Agha Khan Academy?

\_\_\_\_\_.

\_\_\_\_\_.

\_\_\_\_\_.

2. To what extent do you incorporate personalized learning strategies into your teaching practices at Agha Khan School?

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3. How do you perceive personalized learning strategies impacting student engagement in learning at Agha Khan School?

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4. To what extent do you believe personalized strategies aligns with the individual needs and learning styles of students at Agha Khan Academy?

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5. How do you perceive personalized learning strategies influencing students academic progress and achievement at Agha Khan Academy?

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6. How sufficient do you find the support and resources provided for implementing personalized learning strategies at Agha Khan Academy?

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7. To what extent do you utilize technology tools and platforms to personalize learning experiences for students at Agha Khan Academy?

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8. How flexible do you perceive personalized learning strategies to be in allowing students to choose their learning pathways at Agha Khan Academy?

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