National Centre
for Social Research

Evaluation of the Bankee Programme

Final Report

Authors:

Diane Abdallah, Research Director, NatCen International
Georges Poquillon, Research Director, Centre for Evaluation
Felicity Kersting, Senior Researcher, NatCen International
Nandita Upadhyay, Senior Researcher, Centre for Evaluation
Sherman Tai, Researcher, NatCen International
Sherman Tai, Researcher, NatCen International
Prepared for:

Creative Confidence Consultancy and Training Institute

OCTOBER 2024

We believe that social research has the power to make life better.

By really understanding the complexity of people's lives and what they think about the issues that affect them, we give the public a powerful and influential role in shaping decisions and services that can make a difference to everyone. And as an independent, not for profit organisation we're able to put all our time and energy into delivering social research that works for society.

National Centre
for Social Research
35 Northampton Square
London EC1V 0AX
020 7250 1866

www.natcen.ac.uk

A Company Limited by Guarantee

Registered in England No.4392418

A Charity registered in England and Wales (1091768) and Scotland (SC038454)

This project was carried out in compliance with ISO20252

designbysoapbox.com

Contents

Executive Summary

The **Bankee Programme** was initiated in Kuwait to enhance financial literacy among school pupils, equipping them with essential skills for effective personal finance management and preparing them for future financial responsibilities. This evaluation report presents a comprehensive analysis of the programme's implementation, effectiveness, and sustainability, employing a mixed-methods approach that integrates qualitative and quantitative data gathered from a diverse range of stakeholders, including teachers, parents, pupils, principals, and psychologists.

In pursuit of the evaluation's aims, a **qualitative Implementation and Process Evaluation (IPE)** was conducted, alongside a quantitative **Pre-Post Outcomes Evaluation (PPE)**. The evaluation strategy comprises formative research to develop a **Theory of Change (ToC)** that serves as the foundation of the evaluation. This ToC outlines the intended outcomes, outputs, and impacts of the programme, along with the related causal pathways essential for understanding how the programme achieves its goals within the unique socio-economic landscape of Kuwait.

The qualitative research component explored the extent to which the Bankee Programme reached its intended outcomes, taking into consideration socio-economic and contextual factors that may intersect with these outcomes. This qualitative research aimed to identify the challenges and opportunities encountered during implementation while capturing the diverse perspectives of stakeholders. By doing so, it added nuance and depth to the evaluation, helping to explain the improvements observed and suggesting areas for enhancement.

The quantitative analysis involved the PPE, which focused on identifying and developing appropriate measures for the primary outcome—pupils' financial literacy. Data collection occurred at two time points, baseline and follow-up, allowing for an assessment of the distance travelled in financial literacy outcomes as a result of programme participation.

Quantitative findings from the PPE revealed a significant overall increase in pupils' financial literacy scores of 9 percentage points post-implementation (endline) compared to pre-implementation (baseline), with notable improvements in specific areas such as budgeting and saving. In terms of financial behaviour, 94% of pupils at endline reported that expense tracking was imported, up from 81% at baseline (+13 percentage points). Measures of pupil behaviour and wellbeing, indicated by the Strengths and Difficulties Questionnaire (SDQ), showed positive but not statistically significant trends in classroom conduct and emotional health.

However, the quantitative analysis also highlighted some challenges. **Some financial concepts such as salary and borrowing remained misunderstood for a majority of pupils with no clear improvement between pre- and post-implementation measurements.** Pupils also showed minimal or no improvement in specific financial behaviours such as the preference of quality over quantity, indicating that while overall gains were evident, certain demographics or individual circumstances might not have benefited equally from the programme. This disparity underscores the necessity for targeted interventions to address the needs of these groups.

Qualitative feedback indicated that teachers observed significant improvements in students' financial understanding and positive behavioural changes. However, many educators expressed concerns regarding the depth and consistency of the programme’s implementation. A common theme emerged around the need for more comprehensive training and resources to support teachers in delivering the programme effectively. Furthermore, while parents recognised the importance of financial literacy, many felt ill-prepared to reinforce concepts taught in school, highlighting a communication gap between the programme and home reinforcement.

Pupils demonstrated enthusiasm for the Bankee Programme, appreciating the opportunity to manage their finances in an organised manner. Yet, confusion regarding their roles and responsibilities within the programme persisted, especially due to delays in launching the Bankee store, which limited their engagement and excitement. This points to a need for clearer communication and guidance for pupils regarding their participation.

Several barriers to successful implementation were identified, including inconsistencies across schools in the programme's application. **The voluntary nature of teacher participation was noted as both a strength and a limitation, with varying levels of commitment impacting the overall effectiveness of the programme**. Additionally, logistical challenges, such as limited resources and competing priorities, detracted from the focus on financial literacy, necessitating a more robust framework for prioritising financial education.

Counsellors highlighted the emotional and behavioural dimensions of financial literacy addressed by the Bankee Programme. They pointed out that ongoing social issues, such as bullying and classroom disruptions, hindered the programme's effectiveness, emphasising the importance of creating a conducive learning environment for financial education to thrive.

To enhance the sustainability of the Bankee Programme, several recommendations emerged from the qualitative data. These include comprehensive training for educators to empower them in effective programme delivery, increasing parental engagement through dedicated workshops and communication strategies, and establishing a consistent framework for implementation across all participating schools. Addressing behavioural challenges and enhancing the programme with practical, real-world applications were also highlighted as critical steps for improvement.

In conclusion, while the Bankee Programme has demonstrated significant potential in enhancing financial literacy among pupils, the evaluation reveals a complex landscape of successes and challenges. The combination of qualitative and quantitative findings illustrates the programme's impact, alongside the areas that require further attention and refinement. By addressing identified barriers and implementing the proposed recommendations, the Bankee Programme can improve its sustainability and effectiveness, ensuring that pupils are equipped with the necessary financial knowledge and skills for their future. The commitment of all stakeholders—teachers, parents, pupils, principals, and psychologists—will be vital in fostering an environment that prioritises financial education and supports the lifelong learning of financial skills.

الملخص التنفيذي

أُطلق برنامج **Bankee** في الكويت بهدف تعزيز الثقافة المالية بين طلبة وطالبات المدارس وتجهيزهم بالمهارات الأساسية لإدارة شؤونهم المالية الشخصية إدارة فعالة وإعدادهم للمسؤوليات المالية المستقبلية. يقدم هذا التقرير التقييمي تحليلًا شاملاً لتنفيذ البرنامج وفعاليته واستدامته، معتمدًا على نهج مختلط يجمع بين البيانات النوعية والكمية التي جُمعت من مجموعة متنوعة من الأطراف ذات العلاقة ومن بينها المعلمين وأولياء الأمور والطلاب والمديرين والأخصائيين النفسيين.

ضمن مساعي تحقيق أهداف التقييم، أُجري تقييم نوعي للتنفيذ والعملية (**IPE**) وتقييم النتائج قبل وبعد (**(PPE**، وشملت استراتيجية التقييم أبحاثًا تشكيلية لصياغة نظرية التغيير (**ToC**) التي تشكل أساس التقييم، حيث تحدد هذه النظرية النتائج والمخرجات والآثار المتوقعة للبرنامج جنبًا إلى جنب مع المسارات السببية المرتبطة بها، والتي تعتبر ضرورية لفهم كيفية تحقيق البرنامج لأهدافه ضمن المشهد الاجتماعي والاقتصادي الفريد في الكويت.

استكشفت مكونات البحث النوعي مدى وصول برنامج Bankee إلى نتائجه المرجوة مع مراعاة العوامل الاجتماعية والاقتصادية والسياقية التي قد تتقاطع مع هذه النتائج، وهدف هذا البحث النوعي إلى تحديد التحديات والفرص التي ووجهت خلال التنفيذ وفي الوقت ذاته التقاط وجهات النظر المتنوعة للأطراف ذات العلاقة، وقد أضاف ذلك المزيد من التعقيد والعمق للتقييم، مما ساعد في تفسير التحسينات الملحوظة واقتراح مجالات للتحسين.

في حين شملت التحليلات الكمية تقييم النتائج قبل وبعد (PPE)، والذي ركز على تحديد وتطوير مقاييس مناسبة للنتيجة الرئيسية المرجوة وهي الثقافة المالية للطلاب. جُمعت البيانات في نقطتين زمنيتين، في البداية (خط الأساس) والمتابعة، مما سمح بتقييم التقدم المحرز في نتائج الثقافة المالية نتيجة المشاركة في البرنامج.

أظهرت النتائج الكمية من تقييم النتائج قبل وبعد (**PPE**) زيادة كبيرة بنسبة 9% درجات في الثقافة المالية للطلاب بعد تنفيذ البرنامج (خط النهاية) مقارنةً بما قبل التنفيذ (خط الأساس)، مع تحقيق تحسنات ملحوظة في مجالات محددة مثل إعداد الميزانية والادخار. أما فيما يتعلق بالسلوكيات المالية، فقد أظهر 94 في المئة من الطلاب تحسناً في سلوكياتهم المالية مقارنة بنسبة خط الأساس البالغة 81 في المئة (أي بزيادة 13 نقاط مئوية). أظهرت مقاييس سلوك الطلاب ورفاهيتهم، كما هو موضح في استبيان القوى والصعوبات (SDQ)، اتجاهات إيجابية في سلوكيات الفصل الدراسي والصحة العاطفية.

ومع ذلك، سلط التحليل الكمي الضوء أيضًا على بعض التحديات، فقد ظلت بعض المفاهيم المالية مثل الراتب والاقتراض غير مفهومة لدى غالبية التلاميذ ودون أي تحسن واضح بالمقارنة بين ما قبل التنفيذ وبعده. أظهر نسبة من الطلاب تحسن ضئيل أو عدم تحسن في سلوكيات مالية محددة، مما يشير إلى أنه وعلى الرغم من كون المكاسب العامة للبرنامج واضحة، فيحتمل ألا تكون بعض الفئات السكانية أو الظروف الفردية قد استفادت بالتساوي من البرنامج، وتُبرز هذه الفجوة ضرورة وجود تدخلات مستهدفة لمعالجة احتياجات هذه المجموعات.

أشارت التغذية الراجعة النوعية إلى أن المعلمين لاحظوا تحسناً كبيراً في فهم الطلاب المالي والتغييرات السلوكية الإيجابية، إلا أن العديد من المعلمين أعربوا عن مخاوفهم بشأن عمق واتساق تنفيذ البرنامج. وتشارك العديد منهم في ذكر موضوعات حول الحاجة إلى تدريب شامل وموارد لدعم المعلمين في تقديم البرنامج بفعالية. أضف إلى ذلك أن العديد من أولياء الأمور غير مجهزين لتعزيز المفاهيم التي تدرس في المدرسة على الرغم من فهمهم واقرارهم بأهمية الثقافة المالية، الأمر الذي يبرز وجود فجوة التواصل بين البرنامج وتعزيز المعلومات في المنزل.

أبدى الطلاب حماسة للمشاركة في برنامج **Bankee** وعبروا عن تقديرهم لمنحهم الفرصة لإدارة شؤونهم المالية إدارة منظمة، ولكن شعورهم بالارتباك بشأن أدوارهم ومسؤولياتهم ضمن البرنامج كان مستمراً، خصوصاً نتيجة التأخيرات في إطلاق متجر Bankee، الأمر الذي حد من مشاركتهم وقلل حماسهم، ويشير ذلك إلى الحاجة إلى تواصل وإرشادات أكثر وضوحًا للطلاب بشأن مشاركتهم.

حُددت العديد من العوائق التي تواجه التنفيذ الناجح للبرنامج وتضمنت عدم الاتساق في تطبيق البرنامج عبر المدارس المختلفة، كما ذُكر الطابع الطوعي لمشاركة المعلمين كنقطة قوة وقيد في نفس الوقت، حيث أثرت مستويات الالتزام المتفاوتة للمعلمين على فعالية البرنامج عموماً. بالإضافة إلى ذلك، أدت التحديات اللوجستية، مثل الموارد المحدودة والأولويات المتنافسة، إلى تراجع التركيز على الثقافة المالية، مما يتطلب إطارًا أكثر قوة لإعطاء الأولوية للتعليم المالي.

سلط المستشارون الضوء على الأبعاد العاطفية والسلوكية للثقافة المالية التي تناولها برنامج **Bankee،** وأشاروا إلى أن المشكلات الاجتماعية المستمرة، مثل التنمر والاضطرابات الصفية، تعوق فعالية البرنامج، مما يبرز أهمية خلق بيئة تعليمية ملائمة من أجل نجاح التعليم المالي.

لتعزيز استدامة برنامج Bankee، أبرزت البيانات النوعية عدداً من التوصيات، وتشمل هذه التوصيات تدريبًا شاملاً للمعلمين لتمكينهم من تقديم البرنامج بفعالية، وزيادة مشاركة أولياء الأمور من خلال ورش عمل واستراتيجيات تواصل مخصصة، وإنشاء إطار متسق للتنفيذ عبر جميع المدارس المشاركة. وتضمنت الخطوات الضرورية للتحسين المذكورة معالجة التحديات السلوكية وتعزيز البرنامج بتطبيقات عملية من الحياة الواقعية.

في الختام، في حين أظهر برنامج **Bankee** إمكانيات كبيرة في تعزيز الثقافة المالية بين الطلاب، إلا أن التقييم يكشف عن مشهد معقد من النجاحات والتحديات، حيث يبين مزيج النتائج النوعية والكمية للتقييم مدى تأثير البرنامج بالإضافة إلى المجالات التي تتطلب المزيد من الاهتمام والتحسين. يمكن لبرنامج Bankee من خلال معالجة العوائق المحددة وتنفيذ التوصيات المقترحة تحسين استدامته وفعاليته، مما يضمن تجهيز الطلاب بالمعرفة والمهارات المالية الضرورية لمستقبلهم، ذلك وسيكون التزام جميع الأطراف ذات العلاقة -المعلمين والآباء والطلاب والمديرين والأخصائيين النفسيين- حيويًا في خلق بيئة تمنح الأولوية للتعليم المالي وتدعم التعلم المستمر للمهارات المالية.

Acknowledgement

The Evaluation of the Bankee Programme was funded by the Creative Confidence Consultancy and Training Institute (CCCTI), a company based in Kuwait specialising in delivering creative and innovative programmes in education. The authors are grateful for the expert review of Dr Sherine El Taraboulsi-McCarthy and Bazza al Mudhaf, whose comments greatly strengthened the evaluation. The authors would also like to thank the entire CCCTI team for their assistance throughout the whole study period, and Melanie Reixach-Wong for managing the project and editing this Final Report. Any errors and omissions remain the sole responsibility of the authors.

1. Introduction

This report presents the findings of the 2023-24 evaluation of the Bankee programme, an educational intervention focused on improving financial literacy amongst primary school children in Kuwait, and discusses the implications for future iterations of the Bankee programme. It includes findings from both a quantitative pre-post outcomes evaluation (PPE) and a qualitative implementation and process evaluation (IPE).

NatCen International, the global arm of the National Centre for Social Research, in collaboration with NatCen's Centre for Evaluation were commissioned by CCCTI to conduct an independent evaluation of the 2023-24 version of the Bankee programme in Kuwait. The purpose of the evaluation was to develop a Theory of Change (ToC) for the programme; evaluate whether the programme was delivered as intended and the impact of the programme on both pupils' financial literacy and overall behaviour; and identify factors affecting the implementation and delivery of the Bankee programme. It then explores areas for improvement and recommendations for future iterations of the programme.

1.1 Background

There is a growing consensus globally that there is a need for financial literacy interventions in schools to improve individuals' personal financial management and to contribute to broader economic stability and prosperity (Grohmann, Klühs & Menkhoff, 2018). In the context of the Middle East and North Africa (MENA) region, including Kuwait, such interventions are critical as is additional data on the impact of such programmes. For example, Standard & Poor's Global Financial Literacy survey revealed that only 44% of adults in Kuwait were financially literate (Klapper, Lusardi & van Oudheusden, 2015). According to 2017 World Bank data, while financial inclusion improved by 7% between 2014 and 2017, gender disparities in bank account ownership were only reduced by 5%. Furthermore, the data suggests that, between 2014 and 2017, the number of Kuwaiti residents unable to save emergency funds increased while savings declined. These findings indicate existing gaps in financial inclusion that could be effectively addressed through improved financial literacy instilled from childhood. The Central Bank of Kuwait has recognised this need, setting out guidelines to enhance financial inclusion and literacy (Central Bank of Kuwait, 2015).

1.2 Overview of the Bankee Programme

The Bankee programme is a national initiative in Kuwait that aims to teach primary school pupils financial literacy and responsible financial behaviours as well as to promote pupils' anti-corruption values and prosocial behaviours. It is a collaboration between four institutions: CCCTI; the National Bank of Kuwait (NBK); Nazaha, the Kuwait Anti-Corruption Authority; and the Kuwaiti Ministry of Education (MoE). The programme's main objective is to increase pupils' financial literacy by introducing them to financial terminologies and behaviours in a hands-on experiential manner. It was initially launched in 12 schools as a pilot in 2022 before being updated and rolled out in 30 schools for the 2023-24 academic year; this evaluation focuses on the 2023-24 year of the programme only.

Bankee is the first intervention in Kuwait working to facilitate financial inclusion and financial literacy, especially among pupils in schools. It adapted the Classroom Economy Model (https://myclassroomeconomy.org/), an educational programme that simulates a real-world economy in the classroom to teach financial literacy through practical activities, to the Kuwaiti context. The Bankee programme applies real-world economic principles and financial transactions to simulate the Kuwaiti economy within schools, fostering learning through direct application and gamification techniques. This includes:

- Pupils receiving salaries for performing specific tasks assigned by teachers;
- Pupils earning bonuses or receiving fines based on their behaviour in school;
- Pupils spending and/or saving Bankee money (Bankoz) and managing their set expenses (e.g. rent for desks);
- Some Grade 5 pupils holding a Bankee Student position where they assist the teachers and Bankee Teachers by supporting the management of virtual finances and engaging in classroom economy exercises.

2. Theory of Change

2.1 Methodological approach

Three Theory of Change (ToC) workshops were run via Zoom to inform the evaluation framework for the Pre-Post Evaluation (PPE) and Implementation and Process Evaluation (IPE). The workshops involved representatives from CCCTI and Nazaha, as well as school staff who had participated in the pilot programme. NBK representatives were not available for the workshops but contributed via email.

The inclusion of all major stakeholders allowed us to comprehensively understand the programme's aims from their perspectives. The workshops aimed to map the intended and unintended outcomes of Bankee; identify the roles, inputs, activities of different stakeholders; and explicate the expected mechanisms of change. Prior to the workshops, a preliminary desk review of Bankee documentation and relevant literature was conducted to explore best practices from comparable educational interventions globally.

2.2 Key Findings

The full ToC diagram is presented in Figure 1. The ToC workshops identified eight key stakeholders in the programme: Nazaha, NBK, CCCTI, schools, Bankee teachers, other teachers, pupils, and parents/caregivers. Of these, the latter three were also the programme's direct beneficiaries.

Figure 1: ToC Diagram

Inputs	Activities	Mechanisms	Intended Outcomes
NBK: Funding **Nazaha:** Anti-corruption values **MoE:** Integration of Bankee into curriculum **CCCTI:** High-level direction, including contextualization to Kuwaiti contexts **Schools:** Provision of facilities, teachers, students and counsellors **Teachers:** Working-level implementation **Parents:** Engagements with finance at home	**NBK:** Communication with mass media to promote Bankee **CCCTI:** Hold teacher trainings and pupil orientations to explain Bankee **Schools:** Implementing Bankee in their daily routines **Teachers:** Running the program & Monitoring transaction data on the Bankee platform **Students:** Taking part in Bankee	**Implementation:** Students can earn fictional money to pay bills or purchase toys; and teachers issue bonuses or fines to encourage positive classroom behaviours **Collaboration:** Partnerships between Nazaha, MoE, NBK and CCCTI unified approaches to Bankee **Feedback:** Feedback channels facilitated iterative improvement of Bankee **Evaluation:** Monitoring via Bankee platform for timely adjustments	**Short to Medium Term** **Nazaha:** Improved anti-corruption values among pupils **Students:** Improved financial literacy, responsibility, behaviour **Teachers:** More dynamic and interactive learning environment **MoE:** Improved educational interventions across public schools **Schools:** Enhanced capacity to teach financial literacy **Parents:** Reinforced financial literacy learning at home **Long Term** **Nazaha:** Development of an anticorruption culture in society **NBK:** Improved reputation in fulfilling Corporate Social Responsibilities **MoE & Students:** Enhancements in' academic attainments **Schools & teachers:** Adoption of interactive pedagogical methods for teaching and learning **All Stakeholders:** More experience in implementing educational interventions; Further partnerships with each other

Inputs and Activities

Inputs are defined as the resources required for Bankee to be implemented, and activities the services delivered by Bankee stakeholders. Five categories of inputs and activities were identified through the ToC workshops.

- **Funding**: Funding from NBK is needed to sustain the programme. This public-private partnership can enhance the public perception of and community support for both NBK and Bankee.
- **Contextualisation**: The My Classroom Economy model was adapted to the Kuwaiti context, target age group, and target anti-corruption values, namely responsibility, honesty, and integrity defined by Nazaha.
- **Resources**: MoE authorised and facilitated the integration of Bankee into the public-school curriculum. Nazaha and CCCTI provided training materials and ran workshops about implementing the programme. Schools also provided and improved their facilities (e.g. diwaniya, activities room, library) and trained their staff to setup Bankee.
- **Implementation**: All stakeholders played important roles in implementing Bankee. CCCTI directed the programme, NBK engaged with wider stakeholders to raise awareness about the programme; schools, Bankee teachers, other teachers, pupils, and parents/caregivers also engaged with the programme to integrate Bankee into their daily routine.
- **Evaluation**: Shared learning events, facilitated communities of practice, evaluations and continuous monitoring of the Bankee platform enabled continual improvements to the programme.

Mechanisms

The mechanisms in the ToC elucidate how the inputs and activities are expected to lead to the intended outcomes. Stakeholders delineated four mechanisms during the ToC workshops:

- **Implementation**: The roll-out of Bankee involve teacher training and pupil orientation. School teachers collaborate with Bankee teachers to incorporate features of Bankee, such as bonuses and fines, into their classroom practices. Pupils' participation in these tasks develops their financial literacy and shapes their financial behaviour.

- **Collaboration**: Partnership between Nazaha, MoE, NBK, and CCCTI through continuous communication, joint decision-making, resource-sharing and shared accountability unifies their approach to implementing Bankee and reinforces anti-corruption messages. This collaborative process is expected to strengthen teacher-pupil relationships, improve school-community interactions, and raise anti-corruption awareness and financial literacy in the wider society.
- **Feedback**: Robust feedback channels among stakeholders support the iterative improvement of the programme. The active involvement of different stakeholders fosters a sense of ownership and accountability, leading to higher levels of commitment and collaboration.
- **Evaluation**: Stakeholders monitor pupil engagement, behaviour patterns, and educational outcomes through real-time data on the Bankee platform. This facilitates timely adjustments to the programme to maintain pupil engagement and achieve its goals. Nazaha and CCCTI also monitor the incorporation of anti-corruption values into classroom practices and pupils' behaviour.

Intended Outcomes

The ToC workshops identified outcomes in the short-, medium- and long-term.

- **Short-term**: (i) Increased pupil engagement and improved behaviour in the classroom (ii) more positive learning environment, (iii) improved financial literacy among pupils, (iv) heightened understanding of anti-corruption values among pupils and teachers, (v) improved educational practices due to involvement by MoE, (vi) enhanced capacity in schools to teach financial literacy, (vii) increased engagement of parents in their children's education, (viii) reinforced financial literacy learning at home, (ix) growing public awareness and community support of Bankee.
- **Medium-term**: (i) Fostering Nazaha's anti-corruption values among pupils; (ii) continual improvements in pupils' financial literacy and financial responsibility; (iii) further growing public awareness and community support; (iv) further improvements in educational experiences in schools; (v) improved communication and cooperation between schools and the MoE; (vi) improved financial literacy ; (vii) strengthened relationships between pupils and teachers and a more dynamic, interactive and positive school culture.
- **Long-term**: (i) Fostering a culture of integrity and transparency; (ii) further enhancements in pupils' academic attainments, financial management skills, and career readiness; (iii) improved teaching practices; (iv) further integration of financial literacy and anti-corruption values into the public school curriculum; (v) Reduced corruption and improved financial literacy in the wider society, which will contribute to economic stability and community development.

Next Steps

By clarifying the inputs, activities, outcomes and mechanisms of change, the ToC enabled us to create measurement tools that are aligned with the programme's aims. The emphasis on improving financial literacy, financial behaviour and classroom behaviour necessitated quantitative methods, specifically pre-post surveys, to measure pupils' performances and statuses before and after the programme.

The emphasis on stakeholder collaboration and community involvement necessitated qualitative methods such as focus groups and interview to capture the lived experiences and perceptions of participants.

The two approaches complement each other to enable a nuanced understanding of the programme's impacts. Moreover, the identification of key stakeholders and their roles in the ToC allowed for targeted engagement in the evaluation process. We ensured that the voices of pupils, parents, teachers, and school administrators were included to be responsive to the specific contexts and challenges faced by them.

3. Evaluation and Methodology

3.1 Aims and Objectives

The evaluation comprised three strands: the development of the ToC; an IPE; and a PPE. These strands aimed to answer the following research questions:

- **RQ1:** To what extent, and how, has the Bankee programme changed the pupils' financial literacy?
    - What factors influenced how the programme was implemented and delivered?
    - Were any changes made to the delivery mechanisms during implementation or delivery?
    - To what extent can the outcomes be attributed to the program and distinguished from other factors?
    - How was the programme tailored to the local context?
    - How was the programme perceived by pupils and other key stakeholders?
- **RQ2:** To what extent, and how, has the Bankee programme changed the pupils' financial behaviour?
- **RQ3:** To what extent, and how, has the Bankee programme changed the pupils' behaviour, emotional symptoms, peer and teacher relationships, and prosocial behaviour?
- **RQ4:** To what extent, and how, could Bankee be improved drawing on the diversity of perspectives of the key informants (pupils, caregivers, school staff, Bankee implementers)?
- **RQ5:** To what extent, and how, may gender norms, socioeconomic background, age, context and other factors have played into the success or limitations of the program?
- **RQ6:** What are the challenges faced and opportunities achieved in both implementing the program and achieving the intended outcomes of financial literacy and behaviour?

The ToC workshops were held in September 2023, while the PPE and IPE ran throughout the academic year with baseline and endline data collection occurring in October 2023 and April/May 2024 respectively.

3.2 Implementation and Process Evaluation

Baseline data collection for the IPE included 14 interviews with school teachers and 7 with school principals across 7 schools, with between two and four encounters at each school. At endline, 40 interviews or paired interviews were conducted with school principals, counsellors, teachers, Bankee teachers and 26 focus group discussions (FGDs) were held with students, Bankee students, and parents. A breakdown of the IPE participants by role is below in Table 1.

Table 1. IPE Data Collection

Stakeholder group	Number of encounters	
	Baseline	**Endline**
School Principals	14 interviews	6 interviews
School Counsellors	N/A	8 interviews
School Teachers	7 interviews	22 interviews
Bankee Teachers	N/A	4 interviews
Students	N/A	10 FGDs
Bankee Students	N/A	6 FGDs
Parents	N/A	10 FGDs
Total	21 interviews	40 interviews; 26 FGDs

Participants were recruited by CCCTI. Information sheets explaining the research aims and requirements of participation, including emphasising the voluntary nature of participation, and consent forms were distributed to participating schools. For pupils, consent forms were provided to parents to sign prior to data collection and children whose parents had provided consent chose whether to participate in the research. Teachers were able to opt-in based on their interest in participating and availability on the day(s) of fieldwork.

Interviews were semi-structured, conducted in person in Arabic, and lasted for approximately an hour. Topic guides were designed based on the ToC to ensure relevance the the intended programme delivery, and were tailored for each participant group. Broadly, interviews and FGDs covered pupils' financial literacy, financial behaviour, and overall behaviour prior to and after the beginning of Bankee, as well as implementation of the programme for relevant staff. Verbal consent was audio recorded before the encounter and, with permission, interviews and FGDs were recorded and transcribed verbatim to support detailed analysis.

Qualitative data from the interviews was managed and analysed using the Framework approach developed by NatCen (Spencer et al., 2014). Key topics which emerged from the data were identified through familiarisation with the transcripts. An analytical framework was then drawn up and a series of matrices set up, each relating to a different thematic issue. The columns in each matrix represented the key sub-themes or topics and the rows represented individual participants or focus groups. Data from each interview was summarised in the appropriate cell, so the data were ordered systematically and grounded in participants' accounts yet oriented to the research objectives. The final analytic stage involved working through the charted data, drawing out the range of experiences and views, identifying similarities and differences and interrogating the data to seek to explain emergent patterns and findings.

3.3 Pre – Post Evaluation

The PPE measures the change (usually referred to as "distance travelled") in a given outcome before and after the implementation of an intervention. The PPE for the Bankee programme assesses whether the programme: (i) raised the financial literacy of pupils (RQ1), (ii) changed their financial behaviour (RQ2) and (iii) improved their mental health and wellbeing (RQ3). These outcomes were measured through pupil surveys at baseline and endline.

3.3.1. Data collection

Corresponding to the three research questions, the questionnaires, which were adapted from Batty et al. (2016) and Goodman (1997), were organised around three types of questions: (i) Financial Literacy Questions (FLQs), (ii) Financial Behaviour Questions (FBQs) and (iii) Behaviour and wellbeing questions (Strengths and Difficulties Questions - SDQs). The questionnaires were adapted to be suitable for primary school pupils, relevant to the Kuwaiti context, and to measure concepts introduced by Bankee (see section 3.4 on adaptation). The survey questionnaire was administered twice, first before the beginning of Bankee in October 2023 (baseline), and a second time in May 2024 towards the end of the programme (endline). The survey was completed in 24 schools at baseline and 23 schools at endline. Data transcription, translation and data management in Excel were conducted by a third party. Each survey form was anonymised and assigned a unique ID number.

Several challenges were encountered during the data collection process, which affected the consistency of the data. Firstly, the format of survey administration changed from an online survey to a paper-based survey due to logistical challenges shortly before the baseline data collection. As a result, there was a lack of clear guidance on how to handle student name registration on the surveys, leading to inconsistencies in how names were recorded and numerous cases of pupils not writing their names on their survey form. These inconsistencies affected the endline data collection, as it became difficult to accurately match pupils' responses between baseline and endline surveys during the analysis phase. This mismatch impacted the ability to track individual pupil progress.

Secondly, numerous pupils who had taken part in the baseline survey were not available at endline, either because they were engaged in exams or because other pupils had been selected by teachers. Therefore, the endline sample of pupils was largely made of new cpupils compared to the baseline sample.

Due to the aforementioned logistical difficulties encountered at baseline, 177 (17%) of pupils did not write the name of their school on their survey form, and 454 (43%) did not write their own name. Coupled to the fact that different pupils took part in the baseline and endline surveys, it was only possible to match the baseline and endline survey answers for 100 pupils (9% of the baseline sample). More details on the profile of matched pupils in Appendix B.

3.3.2. Analysis model

The PPE model is based on the observation of the same unit at two points in time (before and after the introduction of a programme). Since different pupils were surveyed at baseline and endline, the model was run at two different levels: (1) at the school level by aggregating key outcomes for each school at baseline and endline, and (2) at the pupil level with the subset of pupils for whom we could match their baseline and endline data. The school-level analysis includes 20 schools and 1772 pupils (880 at baseline and 892 at endline), and the pupil-level analysis includes 100 pupils from 15 schools. Given that the school-level analysis utilises a large majority of the available data, primary results are derived from this sample, while pupil-level analysis results are interpreted as robustness checks.

For both samples, a similar approach was used. The analysis was conducted by performing paired-level T-tests to evaluate whether there is a statistically significant change in pupils' outcomes when comparing survey answers before and after the implementation of Bankee. The mean difference between the endline and baseline scores was calculated for each question. At the school-level, the mean difference represents the change in the school-average value of a given outcome.

The paired t-test was conducted for each question to determine if the observed mean difference was statistically significant, i.e. whether the observed difference reflects an actual change in outcomes. As it is common in the literature, we considered as statistically significant mean differences with p-values smaller than 0.05. Such p-values indicate that the measured difference is likely to be different from zero (i.e. a change arose), while larger p-values suggest that the observed change may be due to random variations. The financial literacy questions were treated as binary outcomes, where a correct answer was coded as 1 and an incorrect answer as 0. This binary coding simplifies the analysis by focusing on whether there was a correct response, ignoring the specific details of the incorrect answers. Data cleaning and analysis was conducted in R.

As t-tests only compare two variables (e.g. financial literacy at baseline vs. financial literacy at endline), it is not possible to further test how the pre-post varies across different groups (e.g. gender). As a result, subgroup analysis will be carried out using summary statistics only, and not statistical tests will be conducted.

It is noteworthy that, due to the absence of a control group (i.e. schools where Bankee was not implemented), it is not possible to isolate the sole impact of the programme from improvements caused by other factors (e.g. experience using money at home, international context causing stress). Indeed, it is possible that pupil's financial literacy and financial behaviour improve over time as pupils grow older, irrespectively of whether they are exposed to Bankee. **As a result, quantitative impact estimates should be interpreted with caution, as they cannot be entirely attributed to the intervention.**

3.4 Adaptation of the methodology to the Kuwaiti context

Adapting the Bankee programme to the Kuwaiti context required careful consideration of cultural, societal, and educational norms to ensure its relevance and effectiveness. While the original "My Classroom Economy" model offered a structured framework for fostering financial literacy and responsible decision-making among students, it was not a one-size-fits-all solution.

In Kuwait, financial behaviours and concepts needed to be aligned with local customs, such as charitable giving, which is a significant aspect of Kuwaiti culture. Adjustments were made to the programme's fines and bonuses system to reflect the societal norms in Kuwait, making financial literacy more relatable for young learners. Additionally, language barriers were addressed through careful translation of financial terminology, ensuring accessibility for both Arabic-speaking teachers and students. The collaboration with local stakeholders, including teachers, behavioural analysts, and school administrators, was crucial for co-designing the programme to fit seamlessly into school routines. These modifications ensured that the Bankee programme not only delivered financial education but did so in a way that resonated with Kuwaiti values, particularly the emphasis on prosocial behaviour, communal harmony, and social responsibility.

Similarly, adapting the evaluation methodologies to the Kuwaiti context was salient for accurately measuring the impact of the Bankee programme. From the outset, our evaluation was guided by the outcomes and feedback from the ToC workshops and consultations with professors from the American University of Kuwait, which helped grounding the methodologies in the local context.

A key adaptation was the inclusion of culturally relevant financial concepts in the evaluation tools, such as activities carried out by the Kuwaiti youth, which aligned with Kuwait's societal values and pupils' real-world experiences. Additionally, multiple rounds of edits to the survey instruments, incorporating feedback from CCCTI, ensured cultural relevance and alignment with Bankee's terminologies and goals. These refinements were critical in accurately reflecting Kuwait's educational environment and societal norms, allowing for a more meaningful assessment of financial literacy and responsible behaviour.

By combining structured stakeholder engagement with personal contextual awareness, the evaluation framework was designed to be both robust and well-suited to Kuwait's unique educational and cultural context.

3.5 Limitations

The analysis of the Bankee programme faced limitations. Firstly, because the main PPE analysis was carried out at the school level, it was not possible to conduct robust subgroup analyses across pupil-level characteristics (e.g. gender, age). Similarly, quantitative subgroup analyses for each school type—public, private, and special needs—were not possible due to the insufficient number of schools within each category preventing the production of statistically valid results.

That notwithstanding, simple comparisons of baseline and endline means for key indicators across various subgroups are presented in Appendix E. It is worth noting that the reported differences are solely based on descriptive statistics, and no statistical test were conducted for the aforementioned reasons. Hence, **such results need to be interpreted cautiously, as there is no evidence that the observed differences reflect real effects as opposed to statistical noise**.

Given that robust quantitative subgroup analyses were not feasible due to the limited number of schools in each category, the qualitative distinctions made between public, private, and special needs schools should not be overgeneralised. The separate presentation of qualitative findings helps illuminate key differences, but these are based on small sample sizes, meaning the results may not fully capture the range of experiences within each type of school.

More generally, the observed differences might not always be directly attributable to school type but could also reflect other underlying factors, such as varying levels of parental involvement, resource availability, or regional differences. Therefore, while we have highlighted the nuances in the qualitative data, these insights should be interpreted as indicative rather than definitive patterns, given the absence of sufficient quantitative validation at the subgroup level. The findings point to potential trends that warrant further investigation with larger, more diverse samples, which would allow for more robust conclusions about how school type may affect the outcomes of financial literacy programmes like Bankee.

4. Programme Implementation

Key Findings

- **Pupils** were generally engaged with and enjoyed Bankee because it was integrated into class. However, many found it frustrating to be fined for misbehaviours, challenging to save enough for items and confusing to earmark Bankoz for different purposes.
- **Teachers** were generally committed to Bankee, which allowed them to use Bankoz bonuses to reward good behaviours and fines to penalise bad ones, saving teachers out of pocket expenses. However, some teachers opted out of Bankee because it is too much of a burden to maintain.
- **Parents** were generally supportive of Bankee, seeing it as good influence on their children. However, many noted that they were not given enough information about the programme for them to reinforce children's learnings from the programme at home.
- **Schools** implemented Bankee differently because it relied on the voluntary participation of their teachers. Many also face logistical challenges, resource shortages and competing priorities.

This qualitative results section presents an analysis of the implementation of the Bankee programme in public schools, drawing from interviews and focus group discussions with principals, teachers, counsellors, and pupils. The findings draw upon and highlight several subthemes, including governance, set-up and implementation—encompassing roles, responsibilities, and training—delivery methods, key facilitators and opportunities that emerged during the programme's execution, perceived impacts on various stakeholders, and participant recommendations for future improvements. This structured approach allows for a comprehensive understanding of the Bankee programme's operational dynamics, highlighting both successes and challenges encountered during its implementation in educational settings.

4.1 Implementation

4.1.1. Public Schools

Participants at public schools explained that the Bankee programme was used to reward good behaviour such as being punctual, listening to the teacher and doing what they were asked, and getting answers correct in class. Behaviour described as resulting in a fine included being disruptive, breaking school property, writing on the wall, wearing the wrong uniform, or not doing homework. In some schools, cheating was also penalised through Bankee but in others this was an administrative issue handled separately. Some teachers noted that they did not use Bankee fines for poor behaviour and would instead incentivise students by telling them they would receive a bonus if they behaved differently in future, while some students reported that they had never received a fine. In some schools, the Bankee programme replaced a point system to manage behaviour while in others it was a new concept. Teachers noted that having a team fully committed to implementing Bankee was necessary for its success. Students felt that the fact that the programme was integrated into classes made them more engaging due to the practical applications of money management.

Students explained that they received ten Bankoz weekly and had five left to spend or save after expenses. There was some confusion among both students and Bankee students about the difference between income and rewards, with students referring to them interchangeably. For Bankee students, their roles including selling items, depositing Bankoz, and deducting Bankoz from accounts for purchases. Some parents noted that they had implemented rewards such as going to restaurants for good behaviour at home based on Bankee. **Overall, students were described as being generally engaged with and enjoying Bankee**. However, teachers explained that some students were not interested in Bankee and did not mind losing Bankoz. It was also suggested that in some schools, boys were more engaged than girls in the programme. Students described that they enjoyed the programme but did not like that they lose points for misbehaving and some students found it challenging to save enough Bankoz to purchase their desired items. Teachers noted that some students would become very upset if they lost or did not gain Bankoz, leading to reduced engagement in the programme. Additionally, some students highlighted that withdrawing and managing Bankoz could be confusing at time, especially when trying to allocate money for different purposes.

Teachers described colleagues as engaged with the programme, believing it was important to teach students to save and helped motivate students without teachers feeling the need to use their own money for rewards. Some teachers, however, noted that they believed their style of teaching and relationship with the students was more encouraging than Bankoz as students enjoyed receiving good feedback. Other benefits of Bankee included the digital tools such as the timer and Google classroom, and that the programme unified financial terms and concepts across the school.

Nevertheless, teachers reported that there were challenges and potential barriers with the programme. Firstly, the Bankee store sometimes became very crowded leading to long queues of students. Secondly, **parental engagement was seen to be crucial for Bankee to be effective but some parents noted that they were not informed about the purpose of Bankee and did not speak about it with their children**. The time and commitment required from teachers was also sometimes challenges, with teachers described as opting out of Bankee due to this. Finally, teachers voiced doubt that students' behaviour with Bankoz would impact their real-world financial choices as they were aware it was not real money.

Parents were described by teachers, students, and their peers as generally supportive of the programme, seeing it as an opportunity for their children to learn and a positive influence on their behaviour. Bankee students felt that their parents were supportive of their roles in the programme. On the other hand, it was noted that some parents were not informed about or engaged with Bankee and did not change their attitudes throughout the programme. It was explained by parents that they only received a brochure about Bankee. One view was that this did not include enough information about Bankee as a whole – for example, parents mentioned it was not a programme associated with the MoE and NBK – or how it would impact their children.

4.1.2. Private Schools

The private school implemented Bankee in a similar way to the public schools. Staff explained that eight teachers were involved in the implementation of the programme and had a WhatsApp group to share instructions, news, and pictures, as well as manage logistics. The programme was used to incentivise students to behave well and penalise poor behaviour, with teachers noting that often threatening to fine them was adequate. Some teachers had a preference for not giving out fines as they wanted to focus on positive reinforcement through rewarding good behaviour. Teachers also explained that the programme was helpful for improving students' understanding of financial concepts and spending habits. Bankee was seen to be integrated throughout student activities and Bankee Students would support new students in learning about the programme.

Teachers had a positive view of the programme, however did not believe that bullying behaviour could be adjusted through Bankee as it was felt specialist interventions were required in these cases. Students were seen to be very engaged with Bankee, for example requesting a bonus when they did something well. However, teachers noted that older students had a better understanding of the programme as a whole. Parents were described as supportive of and curious about Bankee, with teachers noting that their support was necessary for the programme's success.

4.1.3. Special Needs School

The implementation of the Bankee programme in the special needs school, akin to other educational institutions, involved a transition from a previous points-based rewards system to the Bankee framework, aimed at promoting positive behaviour and discouraging negative conduct. However, this implementation encountered certain challenges; notably, some students expressed uncertainty regarding their roles as participants within the Bankee system. Furthermore, the Bankee store was operational only during the final week of the programme, thereby limiting students' engagement opportunities with its offerings. Compounding these issues, the school was concurrently managing multiple parallel initiatives, which placed considerable strain on teachers and may have adversely affected the effective delivery of the Bankee programme.

Despite these challenges, educators reported that the mere threat of removing Bankoz was often sufficient to deter undesirable behaviour among pupils. Additionally, the programme facilitated essential conversations regarding financial literacy, allowing students to develop basic counting skills. Students demonstrated enjoyment in rotating through Bankee roles, such as depositing money and managing the Bankee store. Staff members also continued to employ various other motivational strategies, including religious principles, verbal affirmations, and bonus marks, to further encourage positive behaviour and collaboration among pupils. Overall, teachers displayed a high level of engagement with the Bankee programme, expressing enthusiasm and support for its objectives. The programme's ability to be implemented without significant modifications was perceived as a noteworthy advantage, contributing positively to its overall effectiveness.

4.2 Sustainability and ongoing barriers

The sustainability of the Bankee programme is a multifaceted issue that encompasses the perceptions of various stakeholders, including teachers, parents, pupils, principals, and psychologists/counsellors. While the qualitative data reveal a generally positive reception of the programme, several ongoing barriers need to be addressed to ensure its long-term viability and effectiveness in promoting financial literacy among pupils.

4.2.1. Perceptions of the Bankee Programme

The Bankee programme has been perceived as a valuable initiative that enhances pupils' financial literacy and promotes positive behavioural changes. Teachers reported observing improvements in students' understanding of basic financial concepts, which have encouraged them to engage more responsibly with money. However, the qualitative data indicate that there is a shared concern about the programme's consistency and depth. Many teachers expressed a desire for more comprehensive training and resources to facilitate the effective implementation of Bankee in their classrooms. They emphasised that while the programme's core principles are beneficial, additional support in the form of structured lesson plans and teaching materials would enhance their ability to deliver the content effectively.

Parents, on the other hand, acknowledged the importance of financial literacy in preparing their children for future financial responsibilities. However, they raised concerns regarding their own lack of understanding of the programme. **Many parents felt ill-equipped to reinforce the financial concepts taught in Bankee at home, suggesting that enhanced communication and workshops aimed at parents would significantly benefit the programme's overall effectiveness**. This aligns with findings that indicate a gap in parental engagement, which is crucial for reinforcing the financial behaviours learned by pupils.

Pupils expressed enthusiasm for the Bankee programme, appreciating the opportunity to manage their finances in a structured manner. However, some students reported confusion about their roles and responsibilities within the programme. This confusion was compounded by the late implementation of the Bankee store, which limited their engagement and enthusiasm. Additionally, while pupils appreciated the concept of saving and financial planning, they indicated a desire for more practical, real-world applications to better understand how to manage their finances effectively.

4.2.2. Barriers to Implementation

One of the primary barriers to the successful implementation of the Bankee programme is the inconsistency in how it is applied across different schools. Some principals noted discrepancies in teachers' commitment levels and engagement with the programme. The need for voluntary participation among teachers was highlighted as a key factor in ensuring that those involved were genuinely motivated to deliver the content. This approach can foster a culture of commitment and enthusiasm, which is essential for the programme's success.

Moreover, many schools face logistical challenges, such as limited resources and competing priorities that can detract from the focus on financial literacy. The existence of parallel initiatives within schools often stretches teachers thin, making it difficult for them to dedicate sufficient time and energy to the Bankee programme. This situation underscores the need for schools to prioritise financial education and allocate appropriate resources to support its implementation.

Psychologists and counsellors highlighted the emotional and behavioural aspects of financial literacy that the Bankee programme addresses. However, they pointed out that ongoing issues, such as bullying and disruptive behaviours among pupils, can hinder the programme's effectiveness. They suggested that addressing these underlying social issues should be a priority to create an environment conducive to learning.

5. Measured and Perceived Impact

Main Findings

- **Pupils' understanding of financial terminologies improved markedly**. Correct responses to relevant questions increased from 54% at baseline to 63% at endline. However, they still struggle with more complex concepts like "budget" and "loan" which were used less often in Bankee.
- **Pupils' understanding of the value for money improved markedly.** Correct responses similarly increased from 53% to 62%. They made considerable progress in the understanding of dispensable income after paying their bills, although many still struggle with concepts related to savings.
- **Pupils' financial behaviour also improved.** They were able to budget their spending based on their balance, identify overpriced items that lack quality and durability, and keep track of their transactions. However, Bankee did not induce more parents to give their children pocket money.
- **Pupils' overall behaviour also improved.** They became more helpful, organized, attentive and self-confident, although bullying and class-skipping persisted. Our Strengths and Difficulties Questionnaire indicated statistically significant improvements in their emotional management.

5.1 Demographics

Table 2 reports the main demographics characteristics of the sample of surveyed pupils at baseline and endline. Gender balance is achieved both at baseline and endline with female pupils accounting for 47% and 50% of the sample at baseline and endline, respectively.

The majority of pupils are aged 9 (40.1% at baseline; 31.0% at endline) and 10 (48.1% at baseline; 49.0% at endline). Notably, the number of older pupils (aged 11 and 12) increased at between both survey rounds (2.5% at baseline against 15% at endline), which is consistent with pupils getting older over the school year.

Unsurprisingly given the study sampling (22 schools out of 24 surveyed at baseline were public), the majority of pupils are found in public schools (93%), with pupils from private and special needs schools accounting for about 4% and 2% of the sample. In terms of governorates, most pupils are from the Al-Asimah, Ahmadi, and Hawalli governorates, which collectively account for over 70% of the total sample.

Table 2: Demographics of Pupils by Gender, Name and School Type

Distribution		Baseline Frequency	Baseline Percentage	Endline Frequency	Endline Percentage
Gender	Female	500	47.2	509	49.8
	Male	545	51.5	507	49.6
	Missing or Others	14	1.3	6	0.6
	Total	**1059**	**100.0**	**1022**	**100.0**
Age	7	0	0	1	0.1
	8	57	5.4	1	0.1
	9	425	40.1	317	31.0
	10	509	48.1	501	49.0

	11	27	2.5	140	13.7
	12	0	0	10	1.0
	Missing or Others	41	3.9	52	5.1
	Total	**1059**	**100.0**	**1022**	**100.0**
School	Public	989	93.4	951	93.0
	Private	45	4.3	50	4.9
	Special Needs	25	2.4	21	2.1
	Total	**1059**	**100.0**	**1022**	**100.0**
Governorates	Al-Asimah	316	29.8	308	30.1
	Ahmadi	228	21.5	234	22.9
	Hawalli	224	21.2	240	23.5
	Farwaniyah	89	8.4	88	8.6
	Mubarak Al-Kabeer	25	2.4	21	2.1
	Unidentified	177	16.7	89	8.7
	Total	**1059**	**100.0**	**1022**	**100.0**

5.2 Overall Impact

5.2.1. Pupil's financial literacy

Key points

- Qualitative evidence of improved pupils' understanding of their balance and how it relates to spending choice, decision making, and responsibility.
- Improved importance given to budgeting with 94% of pupils reporting that one should track expenses at endline
- No change in the share of pupils preferring quality over quantity (80% both at baseline and endline)
- No change in the propensity of pupils to receive pocket money or to discuss money issues at home, highlighting a lack of engagement with the programme from some parents.

Quantitatively, financial literacy was measured using two set of questions, one assessing the understanding of key financial terminologies (e.g. "bonus", "fines", "balance"), and another one assessing the understanding of financial concepts (e.g. savings, disposible income). Both subscales were made of six different questions (see Table 2).

Table 3: Financial literacy outcomes

Outcome	Question		Correct answer
Financial literacy – terminology subscale	FLQ1	The total amount of money you have available in your account after deducting the money you already spent is called a	Balance
	FLQ3	Youssef's job was to clean the park. Once he was done, he was given his	Pay check
	FLQ5	Nora would like to withdraw money to buy a notebook. Where should she go to?	To the bank
	FLQ7	Khaled sets up an ice cream stand to sell ice cream at the park. He spent KWD 2 to make the ice cream and made KWD 4 from the sale. At the end of the day, he was KWD 2 richer. What is this KWD 2 called?	Profit
	FLQ8	Aisha just found a job that pays KWD 500 per month. She must pay KWD 200 for rent and KWD 200 for her bills. At the end of the month, she will be left with KWD 100. What is this KWD 100 called?	Balance
	FLQ9	Omar receives KWD 300 every month for working in a library. How do you call those 300 KWD?	Salary
Financial literacy – concept subscale	FLQ2	Ali's family has KWD 500 in income, and KWD 600 in expenses this month. Are they saving any money this month?	No
	FLQ4	Noor gets a salary of KWD 300 per months. She must pay KWD 100 for rent and 150 KWD for everything else she needs. How long will it take for her to buy a computer that costs KWD 150?	3 months
	FLQ6	Fatima has KWD 14. She wants to buy a nice backpack for KWD 7 and buy a new watch for KWD 7. She also must pay 3 KWD to pay her electricity bill. What should she do?	Buy the backpack or the watch, but not both.
	FLQ10	Bader received KWD 20 as a gift from his aunt. He knows that he will have to pay KWD 5 to pay her internet bill at the end of the month. Kamal goes to a toy shop. What can he buy?	A watch costing KWD 15
	FLQ11	Ahmad has to pay KWD 150 in rent for his apartment this month, but only has KWD 100 in income. What should he do?	Borrow KWD 50
	FLQ14	Reem worries that she may forget her password to access her Bank account. Her friend Sherifa proposes to see her password, so that she could help her remember. Is it safe to share her password with Sherifa?	No

Financial terminologies

Qualitative observations indicated that pupils' understanding of financial terminologies improved markedly, as evidenced by increased familiarity with terms such as "salary," "income," "expenses," "saving," "deposit," and "withdrawal", although some pupils still faced challenges with defining complex concepts like "budget" and "loan."

Supporting qualitative insights, **the quantitative analysis revealed that knowledge of financial terminologies improved, with a percentage of correct answers increasing from 54% at baseline to 63%**

at endline (+9 percentage points [pp], see Table 3). Notably, the correct responses for questions related to account balance (FL Q1 and FL Q8) substantially increased from 28% to 47% (+19 pp) and from 60% to 74% (+14 pp), respectively. This aligns with qualitative reports of enhanced engagement in learning key financial concepts.

However, discrepancies emerged; for instance, the question about what people receive for completing a job (FL Q3 – correct response being "paycheck") had the lowest correct response rate at endline, revealing persistent misunderstandings from pupils who often confused "paycheck" with "bonus", a term more commonly used in the Bankee context and classroom. Hence, while the programme contributed to overall improvements in financial literacy, certain terminologies may require additional focus in future iterations to ensure comprehensive understanding, especially when they involved concepts that are not directly borrowed from the "real economy" (e.g. bonus as opposed to salary).

Table 3: Financial terminology subscale: school-level results

Indicator	Baseline mean	Endline mean	Mean difference	% increase	p-value
Marks in financial terminologies	**3.19**	**3.65**	**0.47**	**14.69**	**0.00**
Percentage of marks in financial terminology questions	**54.32**	**62.63**	**8.31**	**15.30**	**0.00**
Financial literacy subscale Q1	**0.28**	**0.47**	**0.18**	**65.25**	**0.00**
Financial literacy subscale Q3	0.34	0.39	0.05	14.24	0.22
Financial literacy subscale Q5	0.68	0.70	0.02	3.54	0.70
Financial literacy subscale Q7	0.70	0.74	0.05	6.45	0.26
Financial literacy subscale Q8	**0.61**	**0.74**	**0.13**	**22.15**	**0.03**
Financial literacy subscale Q9	0.68	0.72	0.05	7.10	0.20

Note: 20 schools are included in this analysis. Rows in bold indicate that the pre-post difference is statistically significant.

Financial concepts

The average share of correct answers to the financial concepts subscale rose from 53% to 62% between the two survey rounds (+9 pp, see Table 4), similar to the changed observed for financial terminologies.

Pupils made particular progresses in understanding the concept of available income, i.e. what amount of money is left once mandatory expenses have been factored in (FL Q6 and FL Q10, +12pp increase between baseline and endline).

On the other hand, according to quantiative findings, **pupils still demonstrated weaker knowledge of the concept of savings**, reflected in a mere 58% and 44% correct response rate at endline on questions related to savings (FL Q2 and FL Q4, respectively). The remarkable improvement in FL Q4 from 25% to 44% (+19 pp) might partly reflect pupils' mathematical progress, although qualitative findings suggested that Bankee may have also contributed to enhancing pupils' mathematical skills. It is noteworthy that, although pupils exhibited an icomplete understanfing of the concept of savings as per survey results, several participants to qualitative interviews acknowledged that Bankee had intensified these lessons and led to greater overall savings.

There was no statistically significant change in pupils' understanding of borrowing (FL Q11, -1pp), with only 43% answering correctly at endline. This may be attributed to the fact that borrowing was not a core focus of the Bankee programme. That notwithstanding, qualitative findings provide additional depth to this result. Pupils reported purchasing toys from the Bankee store for friends or siblings with the expectation of receiving a toy in return at a later date, clearly stating that they understood this to be a form of borrowing or loaning Bankoz. Moreover, several pupil participants articulated an understanding that a loan must be repaid and referenced discussions about debt within their homes, indicating a degree of awareness that could have been fostered by family conversations. This reflects a nuanced and mixed understanding of borrowing and loaning, with some pupils having a grasp of these terminologies, potentially discussed at home, and others not.

Similarly, while there was only a marginal increase in the proportion of pupils who believed it was wrong to share passwords with others, including best friends (+7pp, not statistically significant), the overall figure reached a substantial 85% at endline, which stresses that **the large majority of pupils were familiar with the concepts of data security and privacy**. This lack of significant change could be due to the already high baseline rate of understandin. Nevertheless, parents, during FGDs, reported that after participating in Bankee, their children became more assertive about not sharing the passwords to their real bank accounts.

Table 4: Financial concept subscale: school-level t-test results

Indicator	Baseline mean	Endline mean	Mean difference	% increase	p-value
Marks in value for money questions	**3.09**	**3.68**	**0.58**	**18.88**	**0.01**
Percentage of marks in value for money questions	**53.41**	**62.44**	**9.03**	**16.90**	**0.02**
Financial literacy subscale Q2	0.52	0.58	0.06	10.73	0.39
Financial literacy subscale Q4	**0.25**	**0.44**	**0.20**	**79.76**	**0.00**
Financial literacy subscale Q6	**0.57**	**0.70**	**0.13**	**23.20**	**0.00**
Financial literacy subscale Q10	**0.64**	**0.76**	**0.12**	**18.48**	**0.00**
Financial literacy subscale Q11	0.44	0.43	-0.01	-2.48	0.84
Financial literacy subscale Q14	0.80	0.85	0.05	6.63	0.21

Note: 20 schools are included in this analysis. Rows in bold indicate that the pre-post difference is statistically significant.

5.2.2. Pupils' financial behaviour

Key points

- Qualitative evidence of improved pupils' understanding of their balance and how it relates to spending choice, decision making, and responsibility.
- Improved importance given to budgeting with 94% of pupils reporting that one should track expenses at endline
- No change in the share of pupils preferring quality over quantity (80% both at baseline and endline)
- No change in the propensity of pupils to receive pocket money or to discuss money issues at home, highlighting a lack of engagement with the programme from some parents.

Qualitatively, the programme demonstrated a positive impact on pupils' financial behaviours. Participants reported that the Bankee programme positively influenced pupils' financial behaviour. **Qualitative accounts indicated that pupils developed a clearer understanding of their Bankoz balance and its relation to their spending choices, fostering greater independence in decision-making**. Pupils increasingly saved their Bankoz for specific items in the Bankee store or anticipated new product introductions, often competing with classmates to see who could save the most.

Quantitatively, pupils' financial behaviour was primarily captured by two questions: (i) whether pupils prefer quality over quantity by asking them to chose between two plastic toys or one metal toy for the same price (FLQ12), and (ii) whether pupils deem budget tracking as important (FLQ13). This section also investigates the change in the propensity of pupils to receive pocket money and to discuss money issues at home, as those questions capture parents' financial behaviours. Results of the school-level analysis are reported in Table 5.

The share of pupils who chose quality over quantity in the survey (FLQ12) remained constant between baseline (79%) and endline (80%), highlighting a clear preference for quality. The absence of change over time may partly be explained by the fact that preference for quality was already high at baseline, leaving limited room for improvement. However, this result suggests that exposure to Bankee did not shift pupils' preference along this dimension. This interpretation is confirmed by the pupil-level analysis (Table A4) where the share of pupils preferring quality only increased by 4pp (from 74% to 78%), and the mean-difference not being statistically significant.

Similar insights are derived from the qualitative analysis, with examples provided by pupils that included comparisons between iron and plastic products, as well as an understanding that higher-quality, more durable toys tend to be more expensive. This newfound comprehension seemed to enable pupils to identify overpriced items, a skill they previously lacked. However, the application of this understanding varied among pupils; some were willing to invest in higher-quality products, while others prioritised lower-cost options without considering the potential consequences on quality.

The share of pupils reporting that keeping track of expenses is either important or very important substantially increased between baseline and endline, improving from 81% to 94% (+15 pp). This result highlights that almost all the pupils (75%) who did not know about the importance of budgeting tracking before the beginning of the programme came to understand the importance of such a task throughout their exposure to Bankee, showcasing a clear behavioural change. This change was vividly illustrated in FGD involving both parents and pupils. Many pupils reported that they began actively tracking their own finances and the money in their real bank accounts. Parents noted that during Eid, when pupils received money as gifts, their children became particularly vigilant about monitoring their accounts, often requesting their parents to check that the balance remained unchanged. This newfound awareness extended to a desire for saving; pupils expressed intentions to set aside money for future purchases, such as gifts for family members and siblings. These conversations highlight not only **an enhanced understanding of financial management but also a growing sense of responsibility and planning, and an ability to differentiate between wants and needs**.

There were no statistically significant changes in the share of pupils who reported receiving pocket money from their parents (60% at baseline, 55% at endline), and discussing about money issues at home (87% at baseline, 88% at endline). Although parents' decision to award pocket money to their children results from multiple factors, including financial means, this result suggests that children's exposure to Bankee did not necessarily translate into behavioural changes amongst parents, which may speak to parents' involvement in the programme. A similar conclusion can be drawn about covering financial topics at home, although the absence of observed change may also result from saturation given that a very large majority of pupils already dicsussed such topics at baseline.

Table 5: Financial behaviour - school-level t-test results

Indicator	Baseline mean	Endline mean	Mean difference	% increase	p-value
Receives pocket money	0.867	0.883	0.016	1.845	0.5194
Money issues discussed at home	0.595	0.551	-0.044	-7.395	0.3494
Financial Behaviour-Q12	0.79	0.80	0.01	1.78	0.71
Financial Behaviour-Q13	**0.81**	**0.94**	**0.12**	**15.01**	**0.00**

Note: 20 schools are included in this analysis. Rows in bold indicate that the pre-post difference is statistically significant.

5.2.3. Pupils' behaviour and wellbeing

Key points

- Qualitative evidence that pupils became more helpful, organised, attentive, and well-behaved in class.
- Enhancement of interpersonal relationships amongst pupils and between pupils and adults revealed both by qualitative and quantitative evidence
- Important issues such as bullying or class skipping did not vanish, highlighting that Bankee could not address all behavioural challenges.

The qualitative findings indicated that the Bankee programme had a positive effect on pupils' overall behaviour, attributed largely to the implementation of a reward and fine system. Many participants described pupils as becoming more helpful, organised, attentive, and well-behaved in class, as well as taking greater care of school property and their personal belongings. Furthermore, an enhanced understanding of utility usage led pupils to be more conscientious, such as turning off lights when leaving a room. **Participants highlighted a significant decrease in teacher complaints about pupil behaviour**, estimating a reduction of approximately 40-50%. This shift in behaviour was also noted to extend beyond the classroom, with reports of pupils exhibiting increased responsibility at home.

Another positive outcome identified through the qualitative data was the enhancement of interpersonal relationships among pupils, their peers, and teachers. Participants noted that pupils became kinder and more collaborative, fostering an atmosphere of positive competition and leading to the formation of new friendships. The use of a fictional currency as a point system—rather than a simple points tally—was perceived to boost pupils' self-confidence regarding purchases from the Bankee store, further promoting their engagement in the programme.

Participants also noted that Bankee had supported the development of pupils' self-esteem and self-confidence. The programme provided pupils with a sense of maturity and pride as they earned Bankoz through their participation and achievements. Notably, Bankee pupils displayed a firm grasp of their roles within the programme, which further indicates the depth of their engagement and understanding of the financial concepts being taught.

However, it is important to acknowledge that these improvements were not universal. Some pupils, already predisposed to being helpful and tidy, did not show significant changes as a result of the programme. Additionally, issues such as bullying and class skipping persisted among certain pupils, suggesting that while Bankee had a positive impact on many, it could not address all behavioural challenges within the school environment.

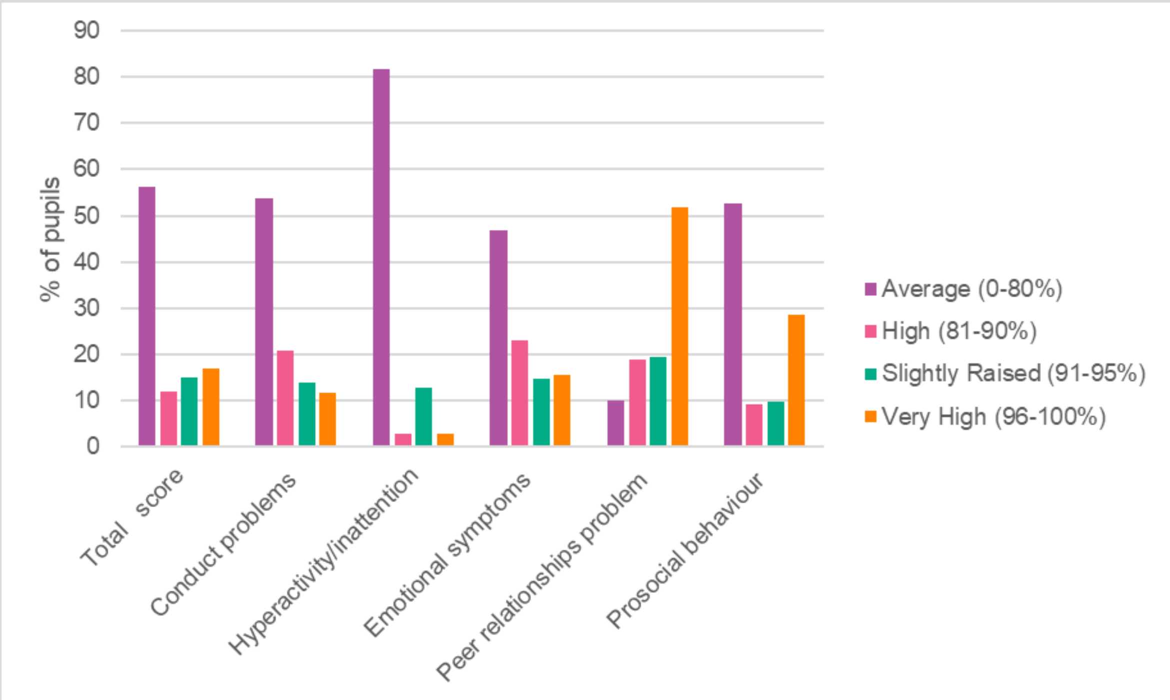
Quantitative assessment of pupils' behaviour utilised the Strengths and Difficulties Questionnaire (SDQ– more details in Appendix A). The SDQ score measures the overal level fo behavioural and emotional difficulties of pupils, which a high score indicating more important difficulties.

At baseline, SDQ analysis results[1] indicated that Bankee pupils experienced particular difficulties with their emotions (3.91) and inattention (3.44) and less with their relationships with their peers (3.05) and their conduct (2.80). Using categorisation bands[2] established from a large community sample of 4-17-year-olds in the UK, **56.2% of surveyed pupils' total SDQ score could be categorised as 'Average' while 16.8% fell under the 'Very High' band (Figure 1).** Looking at the different subscales, pupils' peer relationships problem score was found particularly high, with only 10.1% of pupils who fell under the 'Average' category against 51.8% whose score fell into the 'Very High' band. Note that this categorisation is for reference only due to the distinct contexts of Kuwait and the UK, and does not provide an accurate picture of Bankee pupils' actual behaviour and wellbeing.

[1] Quantitatively, pupil behaviour was assessed using the five subscale of the strenghts and difficulties questionnaire (SDQ), a screening tool that aims to measure children and young people's emotional and behavioural state. The five subscales of the SDQ are defined as follows:
1) Emotional symptoms subscale
2) Conduct problems subscale
3) Hyperactivity/inattention subscale
4) Peer relationships problem subscale
5) Prosocial behaviour subscale
Each subscale is characterised by a score ranging from 0 to 10, where a higher score indicates more problems, with the exception of prosocial behaviour.

[2] This categorisation derives score cut-off points by defining the top scoring 5% as 'Very High' (high level of difficulties), the following 5% as 'High', the next 10% as 'Slightly Raised' and the remaining 80% as 'Average'.

Figure 2: Distribution of Bankee pupils in the different SDQ categorization bands



The analysis of the change in the SDQ scores did not find any robust change in pupils' wellbeing and behaviour, as no difference between baseline and endline scores was statistically significant, with the exception of the emotional problem score that reduced (Table 6).. In the case of emotional symptoms, the score reduced by 9.6%, highlighting a reduction in emotional difficulties faced by students. This improvement was mainly caused by pupils moving from the 'High' to the 'Average' category, with no change observed in the 'Slightly Raised' and 'Very High' bands, suggesting that Bankee only improved the situation of pupils with "mild" emotional difficulties.

The qualitative insights that emotional difficulties were somewhat alleviated align with the quantitative findings, indicating reduced emotional problem scores; however, the lack of statistically significant changes in most subscales highlights the complexity of addressing student behaviour. External factors, such as academic stress and societal issues, likely influenced these behaviours, complicating the interpretation of Bankee's direct impact.

Table 6: SDQ scores - school-level T-test results

Indicator	Baseline mean	Endline mean	Mean difference	% increase	p-value
External Score (Conduct + Hyperactivity)	6.24	5.77	-0.47	-7.56	0.34
Internal Score (Emotion + Peer)	6.96	6.56	-0.39	-5.65	0.32
Conduct Score	2.80	2.41	-0.39	-14.01	0.21
Hyperactivity Score	3.44	3.36	-0.08	-2.32	0.70
Emotion score	**3.91**	**3.53**	**-0.38**	**-9.64**	**0.03**
Peer score	3.05	3.03	-0.02	-0.56	0.95

Prosocial Score	6.93	7.29	0.35	5.06	0.34
Total SDQ score	13.20	12.33	-0.87	-6.56	0.30

Note: 20 schools are included in this analysis. Rows in bold indicate that the pre-post difference is statistically significant.

5.2.4. Moderating Factors

Key points

- No major differences were observed across school types, although pupils from private school demonstrated a slightly better comprehension of financial terminologies while pupils from special needs schools faced more challenges understanding complex financial concepts
- Parents from less affluent backgrounds expressed facing difficulties supporting their children with Bankee due to a lack of financial knowledge.
- Older pupils demonstrated higher levels of engagement with Bankee and capacity to interpret financial concepts where younger pupils struggled.
- Boys were found to be more engaged with Bankee activities, although they also showed higher risks of impulsive spendings. Girls, displayed a more responsible behaviour with better scores on concepts like savings and budgeting than boys.
- Family socio-economic background played a key role in influencing pupils' financial literacy and behaviour, with pupils from wealthier families showing less interest in the cost of items.

This section discusses how the impact of Bankee may vary across different factors, namely school type (public, private, special needs), and pupils' age, gender, and family background. As highlighted in section 3.5, this analysis is entirely based on qualitative evidence.

It is noteworthy that, while the quantitative findings of a 9 pp increase in financial terminology and concept knowledge are promising, **caution is warranted in attributing these changes solely to the Bankee programme**. This complexity is captured by the qualitative insights suggesting that familial backgrounds and prior exposure to financial education could have played a role in shaping pupils' financial literacy.

School type

If, overall, key findings observed in private and special needs schools mirrored those from public schools, some discrepancies emerged.

In terms of financial literacy, pupils in private schools demonstrated stronger comprehension of financial terminology than in public schools, bolstered by visual aids in classrooms that were an initiative developed by and at the discretion of teachers in the private school. Special needs students, while grasping basic financial terms, struggled with more advanced concepts, indicating the need for differentiated instruction to accommodate varied learning paces. According to the pupils and techers, the terminologies most used and understood by pupils in the special needs school were "saving" and "bonus".

In regard to financial behaviour, public school students began managing their Bankoz (the fictional currency) with newfound independence, making informed spending decisions, such as distinguishing between necessary and unnecessary expenses. Some even reported advising family members on saving practices, showcasing the programme's broader influence.

On the other hand, private school students exhibited varying levels of financial planning, with some demonstrating greater responsibility, while others struggled with impulsive purchasing habits. Interestingly, some private school pupils demonstrated a preference for experiences (e.g. privileges and activities organised by the school) over material items. This behaviour reflects a deeper understanding of the value of money as they began to recognise the benefits of saving for enjoyable experiences rather than simply accumulating toys, and was not captured in public and special needs schools.

Results from special needs students were more mixed. Although they were found to increasingly make independent financial decisions influenced by their peers' behaviours, some exhibited a misunderstanding of how to utilise their Bankoz effectively. For instance one pupil expressed intentions to use their Bankoz to purchase a Barbie Dollhouse, which was not offered at the Bankee store, illustrating a lack of clarity regarding the available choices. Another pupil mentioned saving their Bankoz for family trips, which also was not an available option. This indicates that, while special need pupils grasped the concept of saving, there was inconsistency in understanding the practical applications of their financial knowledge. Such findings suggest a need for clearer communication and training regarding the programme's objectives and individual responsibilities.

Parental Influence

Parents from higher socio-economic saw their children show less interest in managing their money and being less concerned about savings. **In contrast, parents from lower socio-economic backgrounds, who may have limited financial knowledge, faced more challenges in supporting their children's learning**. This disparity impacted pupils' outcomes.

Age

Age played a role in determining how pupils engaged with and benefitted from the Bankee Programme. **Older pupils, particularly those in fourth and fifth grade, displayed a higher capacity to grasp complex financial concepts, such as budgeting and saving**. They were more likely to report increased confidence in managing personal finances and showed greater improvements in financial literacy scores, as they could better connect these lessons to their future financial responsibilities.

In contrast, younger pupils demonstrated enthusiasm for the programme but often struggled with the more abstract financial concepts. While their enthusiasm was an important positive outcome, they required more simplified and practical approaches to fully internalise the lessons.

Gender

Gender differences also emerged from the evaluation, influencing both the perception of the programme and its impact on financial behaviours. Boys and girls responded differently to various aspects of the Bankee Programme.

Boys were generally more engaged in the hands-on, experiential learning elements, such as managing finances for school projects or participating in classroom activities related to saving and budgeting.

However, they also tended to report higher levels of impulsivity in spending behaviours, indicating that while they gained knowledge, translating that into disciplined financial behaviour was more challenging for some boys.

On the other hand, **girls exhibited a more cautious and responsible approach to managing finances post-programme**. They tended to score higher in measures related to saving and budgeting, showing greater self-control in financial decision-making. However, some qualitative feedback from teachers and counsellors suggested that girls were more likely to engage in discussions around finances than boys.

Socio-Economic Background

Family background emerged as a significant factor influencing financial literacy. Pupils with mothers who were educated and engaged in their children’s education exhibited higher levels of financial awareness, illustrating the critical role that familial support and education play in shaping financial understanding.

Family background was also identified as a critical factor influencing children's financial behaviour. Participants observed that parents’ relationships with money, their engagement with the school, and the family's financial status significantly shaped pupils’ attitudes. Children from more affluent families tended to exhibit less concern regarding the costs of items, which may hinder their understanding of financial management. Additionally, parental approaches to providing money to their children played a crucial role in shaping how much control pupils felt they had over their spending habits.

6. Conclusions

The evaluation of the Bankee Programme has revealed its potential to advance financial literacy among pupils in Kuwait, equipping them with the skills necessary for responsible personal finance management. However, while the programme's impact is evident, the findings also point to challenges that need to be addressed for the initiative to fully achieve its intended outcomes. The evaluation, grounded in a robust mixed-methods approach combining quantitative Pre-Post Evaluation (PPE) and qualitative Implementation and Process Evaluation (IPE), offered rich insights into the successes and areas of improvement for the programme, as well as its implementation across different school settings.

The Theory of Change (ToC) established for the Bankee Programme identified key outcomes such as improved financial literacy, positive behavioural changes, enhanced financial decision-making, and greater confidence in managing personal finances. These intended outcomes were measured using quantitative tools like an adapted version of the Batty et al. (2015) financial literacy survey and the Strengths and Difficulties Questionnaire (SDQ), alongside qualitative insights from interviews and focus group discussions (FGDs) with various stakeholders.

Programme Achievements and Alignment with the Theory of Change

The evaluation revealed that the Bankee Programme made strides toward achieving its core objectives. The most prominent success was in improving pupils' financial literacy scores, with a 9 percentage point increase overall, including notable gains in understanding concepts such as budgeting and saving. This aligns well with the ToC's intended outcome of enhancing students' financial knowledge and decision-making skills. Additionally, 94% of surveyed pupils at endline highlighted the importance of budget tracking, indicating a positive shift in self-efficacy, a key psychological outcome anticipated by the ToC.

Beyond the quantitative results, the qualitative findings supported the notion that the programme had a transformative effect on many pupils, particularly in terms of their enthusiasm for learning about finances. Students demonstrated a newfound ability to connect financial literacy to everyday life, fulfilling another ToC goal: applying financial knowledge in real-world contexts. However, there was still some confusion among pupils regarding their roles and responsibilities within the programme, a gap that highlights the need for clearer communication and structure—an essential step in maximising the programme's impact on financial behaviour.

Challenges and Barriers to Success

Despite these gains, several barriers prevented the programme from fully realising its potential. The ToC emphasises equitable outcomes for all pupils, yet the PPE results revealed that some students did not experience notable improvements in financial behaviour. This divergence points to an uneven impact of the programme, possibly driven by socio-economic, behavioural, or school-level factors that hindered some students from benefiting as fully as others. Such disparities underscore the necessity for targeted interventions tailored to the unique needs of specific pupil groups, particularly those in lower socio-economic brackets or with behavioural challenges.

Stakeholder feedback further emphasised concerns about the programme's consistency and depth of implementation, both of which are crucial to ensuring uniform progress toward the ToC's goals. In particular, teachers expressed a need for more comprehensive training and resources to effectively deliver the curriculum.

The variability in programme delivery across schools, particularly between public, private, and special needs institutions, limited the programme's overall reach and effectiveness. These implementation gaps suggest that standardised guidance, alongside enhanced support for educators, will be necessary to ensure that the intended outcomes of the ToC are met consistently across all participating schools.

Another key issue was the lack of engagement and preparedness among parents, who play a critical role in reinforcing financial concepts at home. Many parents felt ill-equipped to support their children's learning, which diluted the programme's impact outside the classroom. Addressing this gap by involving parents more directly through workshops and communication strategies would align with the ToC's aim to create a supportive learning environment across all facets of a pupil's life.

Social and Behavioural Context

In examining the broader socio-emotional and behavioural context in which the programme was delivered, the evaluation highlighted ongoing challenges that impeded the programme's full potential. For instance, bullying and classroom disruptions were frequently cited as barriers to effective financial learning, limiting pupils' ability to engage meaningfully with the programme. These challenges point to the need for integrating social-emotional learning (SEL) into the financial education curriculum, which could foster a more inclusive and supportive environment, enhancing pupils' emotional wellbeing and overall engagement. Aligning the programme with a broader SEL framework would help to meet the ToC's more holistic outcomes around behavioural improvement and emotional resilience, both critical for the long-term sustainability of financial education.

Contributing Factors

Interestingly, various contributing factors related to pupils, parents, and their contexts, were important to the uptake of Bankee and its impact on pupils. Higher socio-economic background for pupils and their parents emerged as a major factor. Pupils with a higher socio-economic background and particularly those attending private schools had generally higher exposure to financial concepts at home and through extracurricular activity exposure. This supported in further qualitative improvements in financial literacy and increased likelihood of engagement with financial lessons in Bankee.

Further, gender become a notable factor from the programme, whereby boys generally engaged more with hands-on, experiential learning elements of Bankee and reported higher impulsive spending behaviour. Alternatively, girls demonstrate a more cautious and responsible approach to managing finances as evidenced by more careful saving and self-control behaviour.

Additionally, age was influential in determining how pupils engaged with Bankee. While pupils from all age groups showed enthusiasm for the programme, older pupils displayed a higher capacity to engage with more complex concepts and like budgeting and saving, while younger pupils benefitted from more simplified and practical approaches to the programme.

Overall, the combined impact of parental influence, age, gender, and socio-economic background created a nuanced landscape for programme outcomes, thus underpinning the need for tailored interventions for diverse student bases.

7. Recommendations

Ultimately, the interplay between qualitative and quantitative findings suggests that while the Bankee programme made meaningful strides in improving financial literacy and behaviour, several actionable recommendations remain for enhancing and scaling the Bankee programme. These suggestions are grounded in the experiences of educators, parents, and pupils, aiming to broaden the programme's impact across various age groups and improve its overall effectiveness.

7.1 Operational Recommendations

Comprehensive Financial Education

Introduce comprehensive lessons that cover financial planning, budgeting, and investing, particularly as young people are increasingly exposed to various financial products and services without adequate guidance. This is expected to fulfil pupils' desire for more support in managing their finances effectively, beyond the basic concepts of saving and spending.

Teacher Participation and Incentivization

Consider making teacher involvement in the Bankee programme voluntary rather than obligatory. This approach is expected to foster greater commitment and enthusiasm among educators, ensuring that they are genuinely invested in the programme's objectives. A system of rewards and recognition for participating teachers could be established to encourage teachers to invest their time and effort into delivering high-quality financial education.

Comprehensive training for teachers

Provide teachers with in-depth training and resources for them to be empowered and implement the programme more effectively. This could include workshops, instructional materials, and ongoing support to address the varying levels of familiarity with financial literacy concepts.

Enhancing Parent Engagement

Deliver awareness sessions about the Bankee programme for parents before its implementation. Such sessions would facilitate a better understanding of the programme's objectives and methods, ultimately enabling parents to support their children more effectively in applying the skills learned.

Sustaining Pupils' Incentivization and Incorporating Experiential Learning

Alternative incentivization can consider incorporating experiential learning opportunities as rewards to further motivate pupils. Suggestions include organising trips to notable financial institutions, such as the National Bank of Kuwait, or a celebratory trip to Diwaniya, where students can use their Bankoz to access activities that reinforce the value of their financial knowledge. These experiences would not only serve as rewards but also as practical applications of their financial literacy training.

Clarifying roles and expectations for students

Moreover, the confusion expressed by some pupils regarding their roles in the Bankee programme suggests a need for improved communication and clarity around expectations. Addressing this issue is crucial to fostering a sense of ownership and responsibility among all pupils, enabling them to maximise their participation in the programme effectively.

Further applications to real-world scenarios

While the gamification elements of Bankee effectively engage pupils, ongoing assessment is necessary to ensure that the lessons learned translate into real-world financial competence. Future iterations may benefit from incorporating more practical applications and scenarios, allowing pupils to practice their financial skills in tangible contexts. The latter was an approach implemented by private school teachers to ensure that these concepts translate beyond Bankee. This will be discussed further in the following section.

Expanding Store Offerings

Expand the variety of items available at the Bankee store to maintain pupil interest and engagement. Suggestions include the addition of popular toys, such as dolls or gift items, which have been identified as appealing to pupils. Improved diversity in offerings would incentivise pupils to save and manage their Bankoz more effectively.

Community and Charitable Engagement

Maintain a charity box within the Bankee framework to allowing pupils to make donations and engage in philanthropic activities. This element is anticipated to instil a sense of social responsibility, encouraging students to consider the impact of their financial decisions on their communities.

7.2 Systemic Recommendations

Advanced Financial Literacy Concepts

Introduce additional financial literacy concepts, including borrowing, loaning, profit, and interest. Pupils have expressed a keen interest in understanding these real-world applications of finance, suggesting that expanding the curriculum to include these topics would greatly enhance their learning experience. Providing pupils with a more comprehensive financial education would empower them to make informed decisions in their personal lives as they grow older.

Focus on Behavioural Issues

Create a safe environment where financial literacy can thrive by addressing behavioural challenges, such as bullying and classroom disruptions. Schools should consider integrating social-emotional learning into the curriculum to foster a supportive and collaborative atmosphere.

Tailored Financial Education

Develop financial education strategies tailored to students' age, gender, and socioeconomic background to enhance learning outcomes. Future iterations of the programme should incorporate a more holistic approach that considers family involvement and contextual influences. By addressing these factors, the programme can aim for even greater efficacy in empowering pupils with essential financial skills and promoting positive behavioural outcomes.

Targeting Broader Age Groups

Extend the Bankee programme to include older age groups, particularly sixth and seventh graders, targeting pupils aged 8 to 12 years. Participants noted that these age groups are at a critical developmental stage where financial literacy can be effectively integrated into their learning, equipping them with essential life skills as they approach adolescence.

Consistency Across Schools

Establish a framework for consistent implementation of the Bankee programme across all participating schools. This framework could include standardised materials, guidelines for teacher participation, and mechanisms for monitoring and evaluation.

Appendices

Appendix A: SDQ

Pupils' behaviour and wellbeing is assessed by the 25 questions of the SDQ questionnaire, which is adapted from a globally recognised screening instrument for assessing the mental health of children (Goodman & Goodman, 2009). They were adapted to the Arabic context for pupils to understand. These questions ask pupils to respond to 25 statements on a scale of 0 (Not True), 1 (Somewhat True) or 2 (Certainly True). The SDQ has subscales covering 5 domains of mental health and functioning, namely (i) Conduct problems, (ii) Hyperactivity, (iii) Emotional problems, (iv) Peer problems and (v) Prosocial behaviour. The extent of each problem or behaviour is measured by five questions in the survey. High scores on each scale indicate a higher level of the behaviour or problem, with the exception of the Prosocial scale which is the inverse.

The Conduct problems scale measure pupils' ability to manage their own behaviour, for instance whether they get angry easily, engage in a lot of fights, or steal things. The Hyperactivity scale measure pupils' ability to stay calm and focused, including whether they get distracted easily, pay attention to the work they are doing, and think twice before doing things. The Emotional problems scale measures the extent of pupils' negative emotions, such as whether they worry a lot, are often unhappy, and have many fears. The Peer problems scale measures how well pupils get along with their peers, for instance whether they have good friends, are liked, or are being bullied. Finally, the Prosocial scale measures pupils' interaction in groups, including whether they are nice to, will share things, with and are helpful to other people.

A score is calculated by aggregating pupils' answers in the questions corresponding to each scale. The higher the score, the more difficulty a pupil is facing, except for the Prosocial scale in which high scores are indicative of more prosocial behaviour. The Emotional and Peer problems scores are combined to generate an (vi) Internalising Score; while the Conduct and Hyperactivity Scores are added to generate an (vii) Externalising Score. In turn, the Internalising and Externalising scores are added to generate a Total Difficulties Score, which aggregate all scales except the Prosocial scale.

Appendix B: Individual-level matching

Pupils where matched using their names and schools. Table A1 compares the baseline answers of pupils who found a match at endline to those who did not. The comparison was made by regressing a binary indicator equal to 1 if a given pupil was also identified at baseline on a set of baseline characteristics using ordinary least squares (OLS).

Most coefficients are not statistically significant, suggesting that pupils who could be identified both at baseline and endline were similar to those only identified at baseline, to a few exceptions. First, the matched pupil sample includes fewer female pupils than the unmatched one (21 percentage point difference). Pupils in the matched sample were also characterised by a higher SDQ total score, indicating more behavioural and emotional problems. This is particularly the case with their relationship with peers.

Table A1: Matched pupil sample balance

Indicator	Mean difference	p-value	N (non-matched)	N (matched)
Female	**-0.208**	**0.000**	**946**	**97**
Age	0.089	0.199	921	95
Receives pocket money	-0.014	0.692	923	97
Discusses money issues at home	-0.052	0.311	957	100
FLQ1	0.093	0.058	920	94
FLQ2	-0.078	0.138	925	97
FLQ3	0.000	0.991	935	99
FLQ4	-0.061	0.198	932	99
FLQ5	-0.059	0.235	933	97
FLQ6	-0.023	0.662	922	97
FLQ7	-0.058	0.211	936	100
FLQ8	-0.035	0.490	921	96
FLQ9	-0.006	0.907	932	98
FLQ10	0.036	0.474	891	94
FLQ11	0.017	0.745	927	97
FLQ12	-0.047	0.282	923	98
FLQ13	0.043	0.304	872	97
FLQ14	-0.013	0.762	928	100
% correct financial literacy questions	-1.353	0.558	955	100
% correct financial literacy questions – terminology subscale	-0.727	0.786	954	100
% correct financial literacy questions – concept subscale	-1.959	0.467	955	100
Total SDQ score	**1.752**	**0.023**	**957**	**100**
Conduct problems subscale	0.375	0.117	957	100
Hyperactivity/inattention subscale	0.463	0.058	957	100
Emotional symptoms subscale	0.331	0.218	957	100
Peer relationships problem subscale	**0.583**	**0.01**	**957**	**100**

Prosocial behaviour subscale	0.678	0.045	957	100

Note: Rows in bold indicate statistically significant coefficients.

Appendix C: Distribution of financial literacy answers

Financial terminologies

Figure A 1: Distribution of Pupils' Responses to FLQ1 at Baseline and Endline

Question: The total amount of money you have available in your account after deducting the money you already spent is called a?

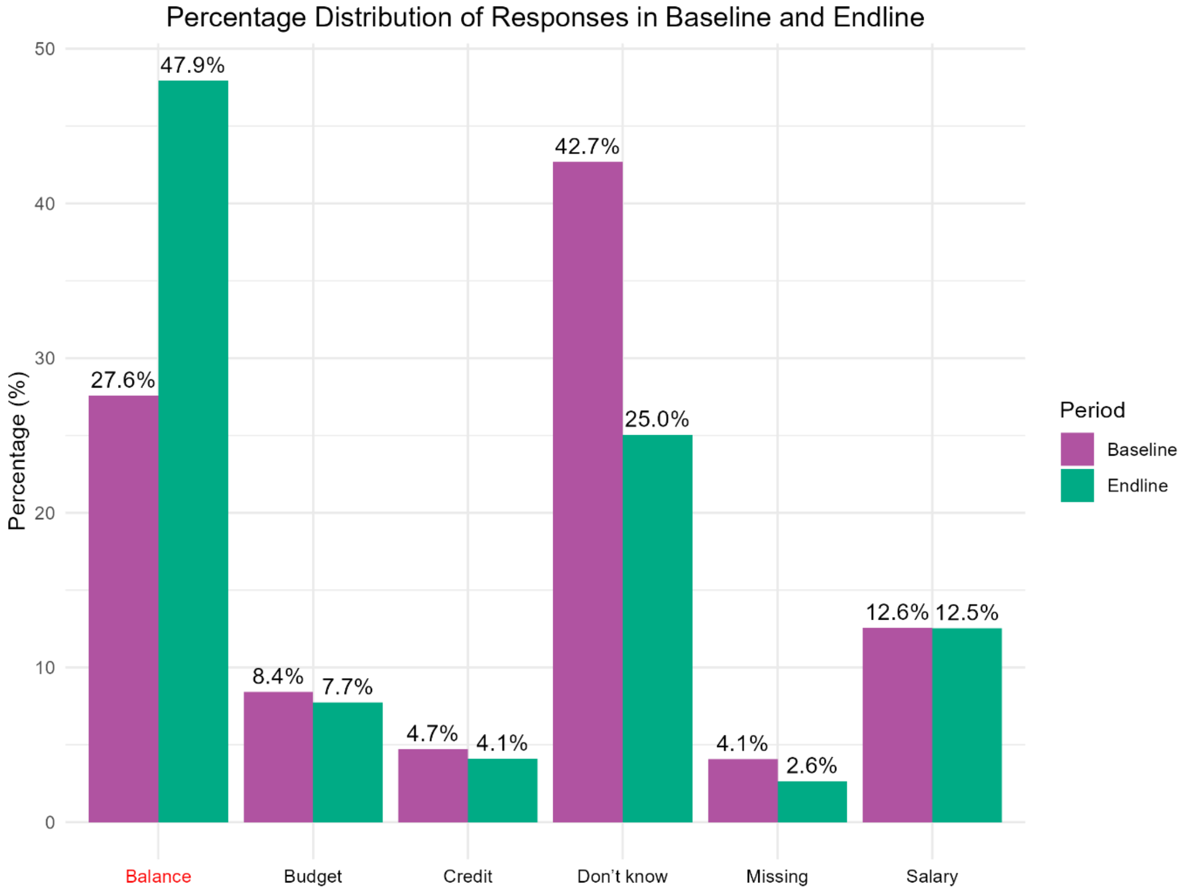


Figure A 2: Distribution of Pupils' Responses to FLQ3 at Baseline and Endline

Question: Youssef's job was to clean the park. Once he was done, he was given his?

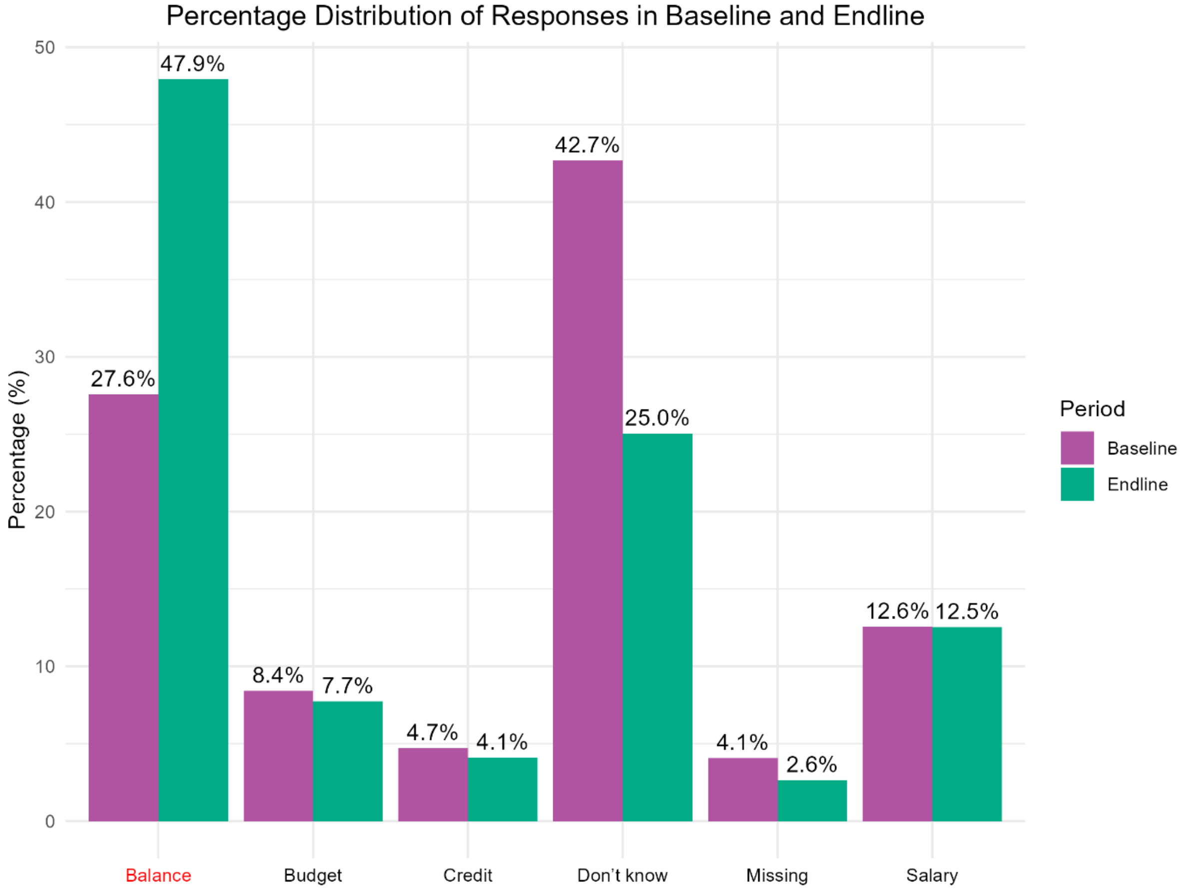


Figure A 3: Distribution of Pupils' Responses to FLQ5 at Baseline and Endline

Question: Nora would like to withdraw money to buy a notebook. Where should she go to?

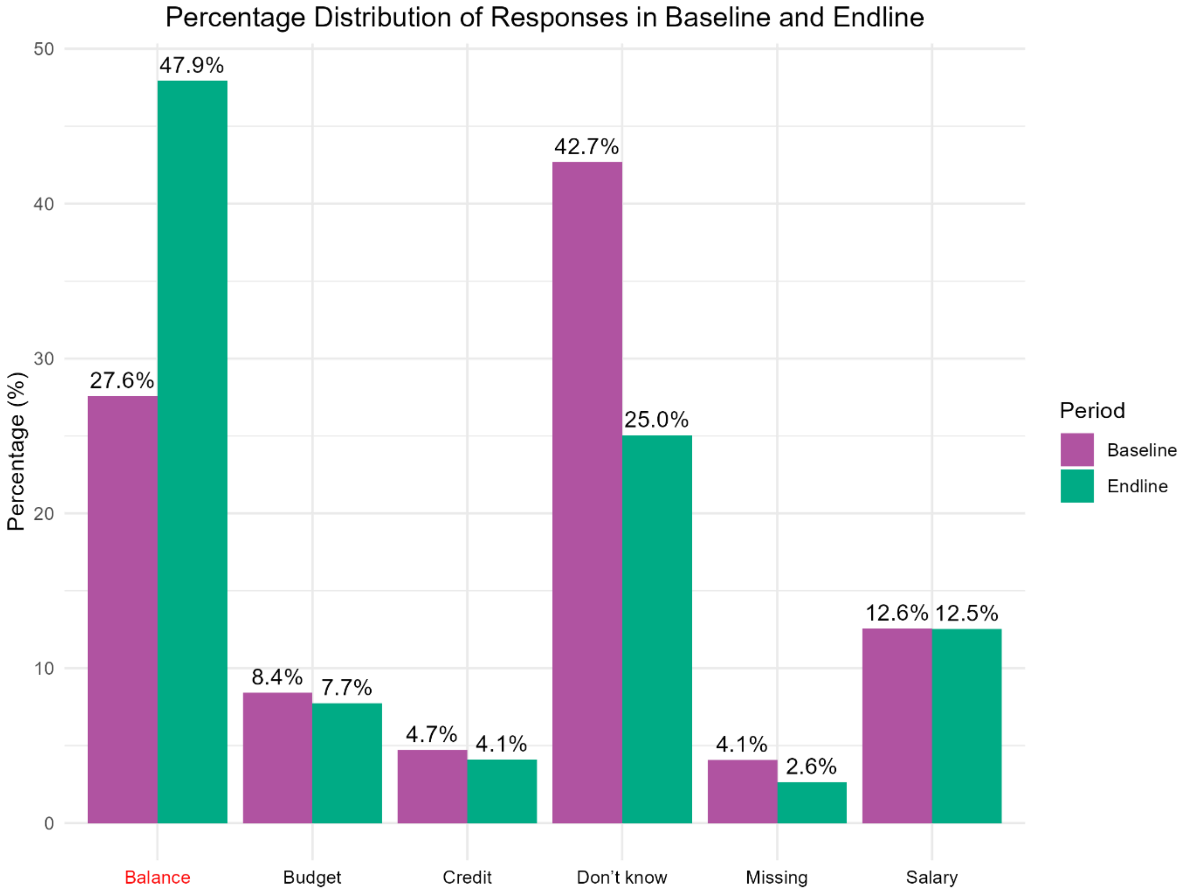


Figure A 4: Distribution of Pupils' Responses to FLQ7 at Baseline and Endline

Question: Khaled sets up an ice cream stand to sell ice cream at the park. He spent KWD 2 to make the ice cream and made KWD 4 from the sale. At the end of the day, he was KWD 2 richer. What is this KWD 2 called?

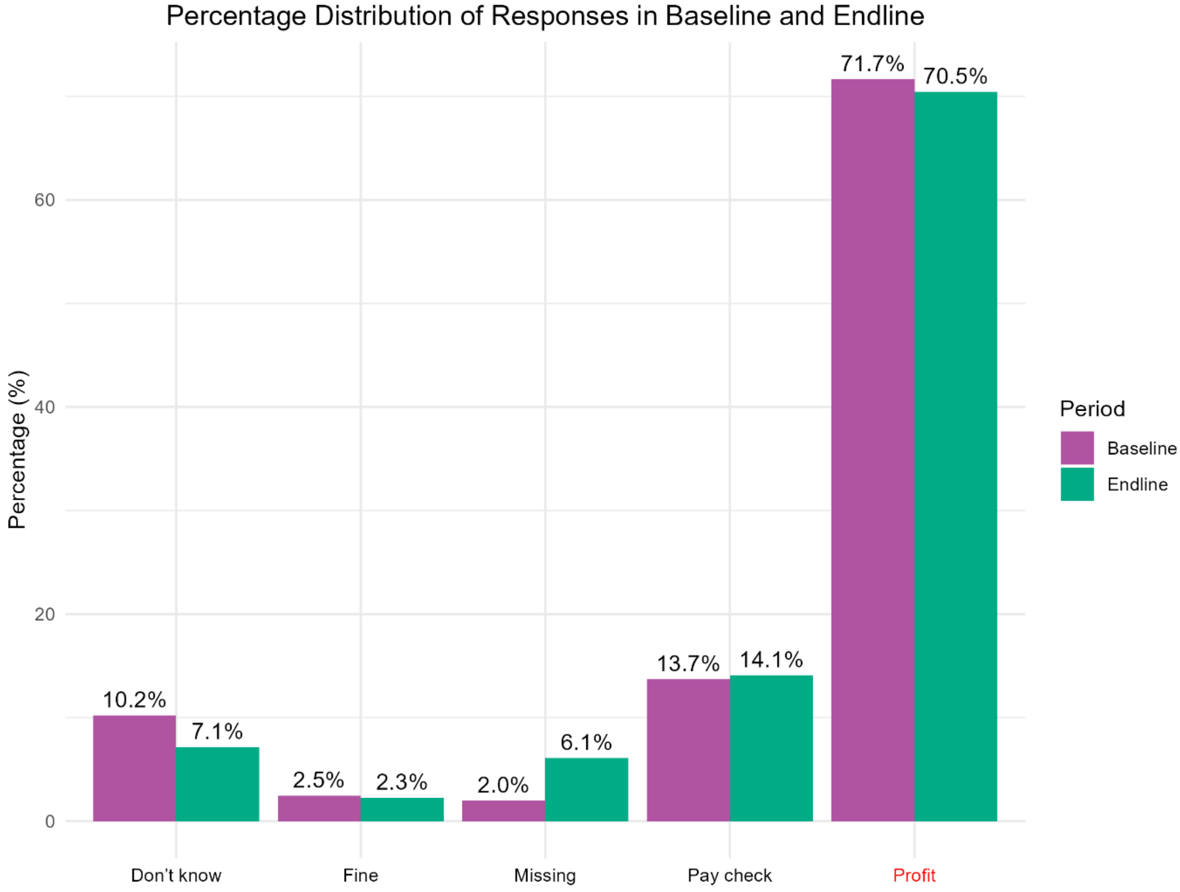


Figure A 5: Distribution of Pupils' Responses to FLQ8 at Baseline and Endline

Question: Aisha just found a job that pays KWD 500 per month. She must pay KWD 200 for rent and KWD 200 for her bills. At the end of the month, she will be left with KWD 100. What is this KWD 100 called?

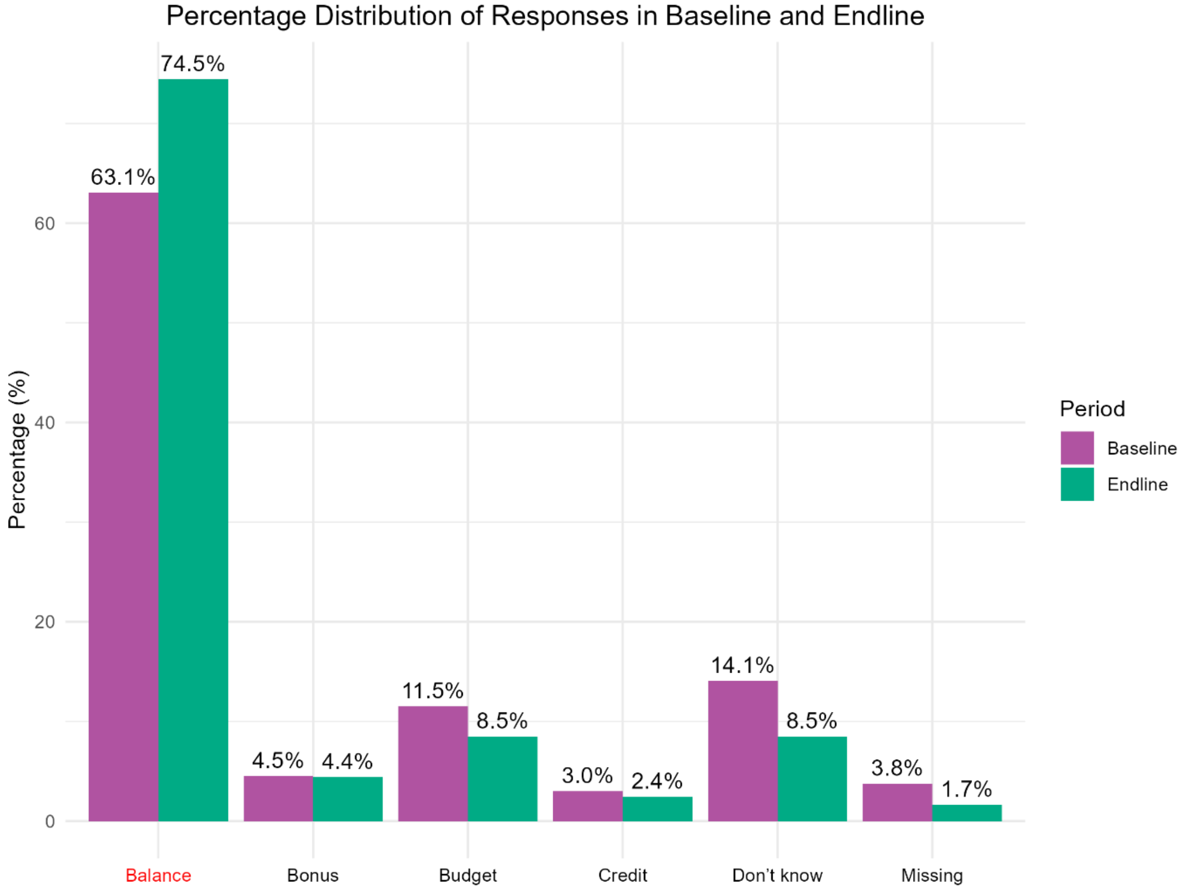
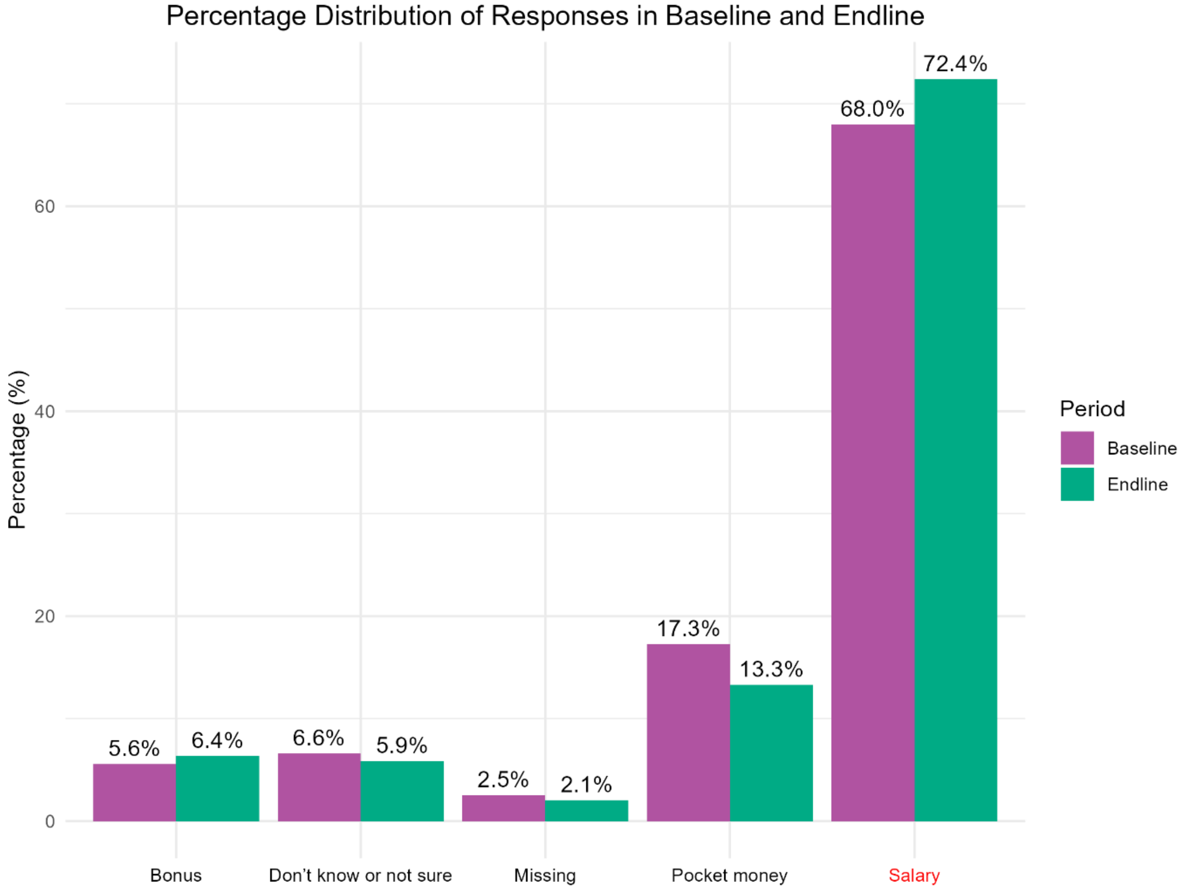


Figure A 6: Distribution of Pupils' Responses to FLQ9 at Baseline and Endline

Question: Omar receives KWD 300 every month for working in a library. How do you call those 300 KWD?



Financial Concepts

Figure A 7: Distribution of Pupils' Responses to FLQ2 at Baseline and Endline

Question: Ali's family has KWD 500 in income, and KWD 600 in expenses this month. Are they saving any money this month?

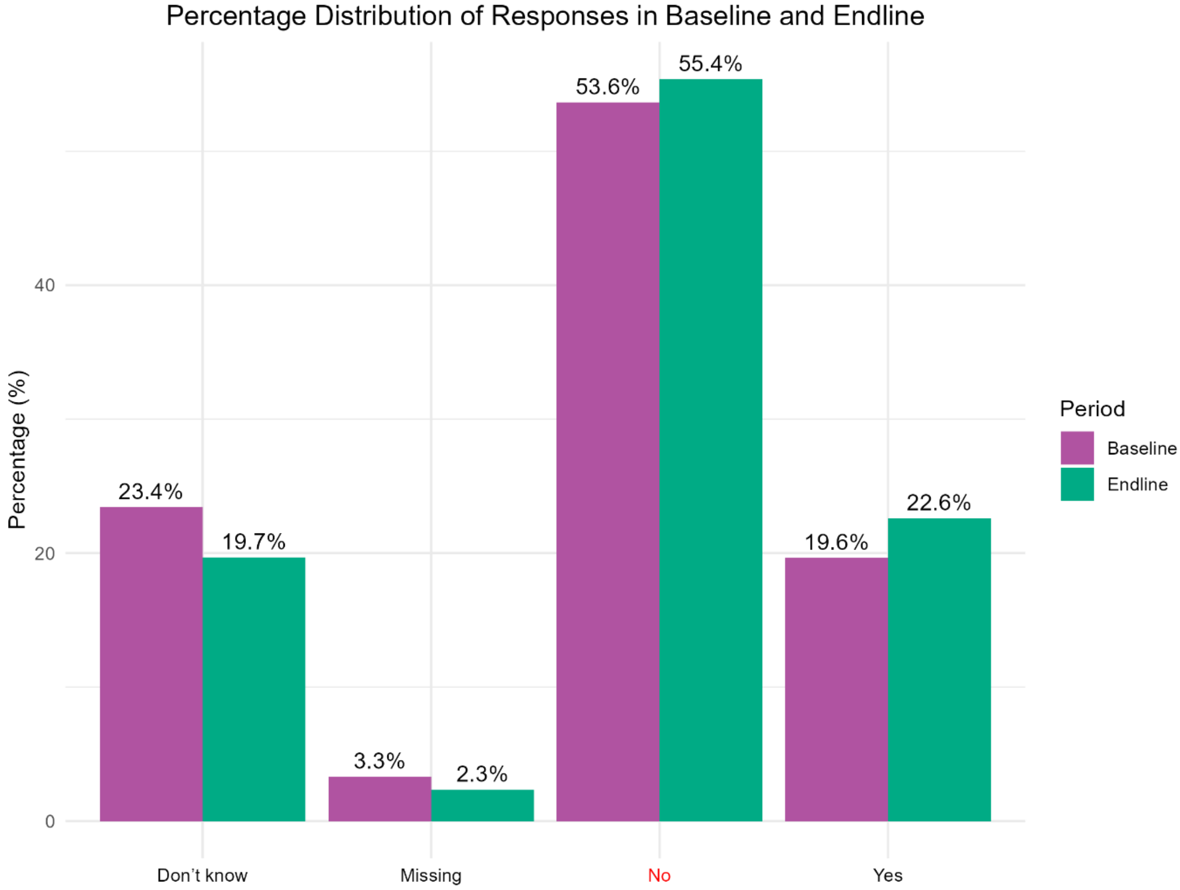


Figure A 8: Distribution of Pupils' Responses to FLQ4 at Baseline and Endline

Question: Noor gets a salary of KWD 300 per months. She must pay KWD 100 for rent and 150 KWD for everything else she needs. How long will it take for her to buy a computer that costs KWD 150?

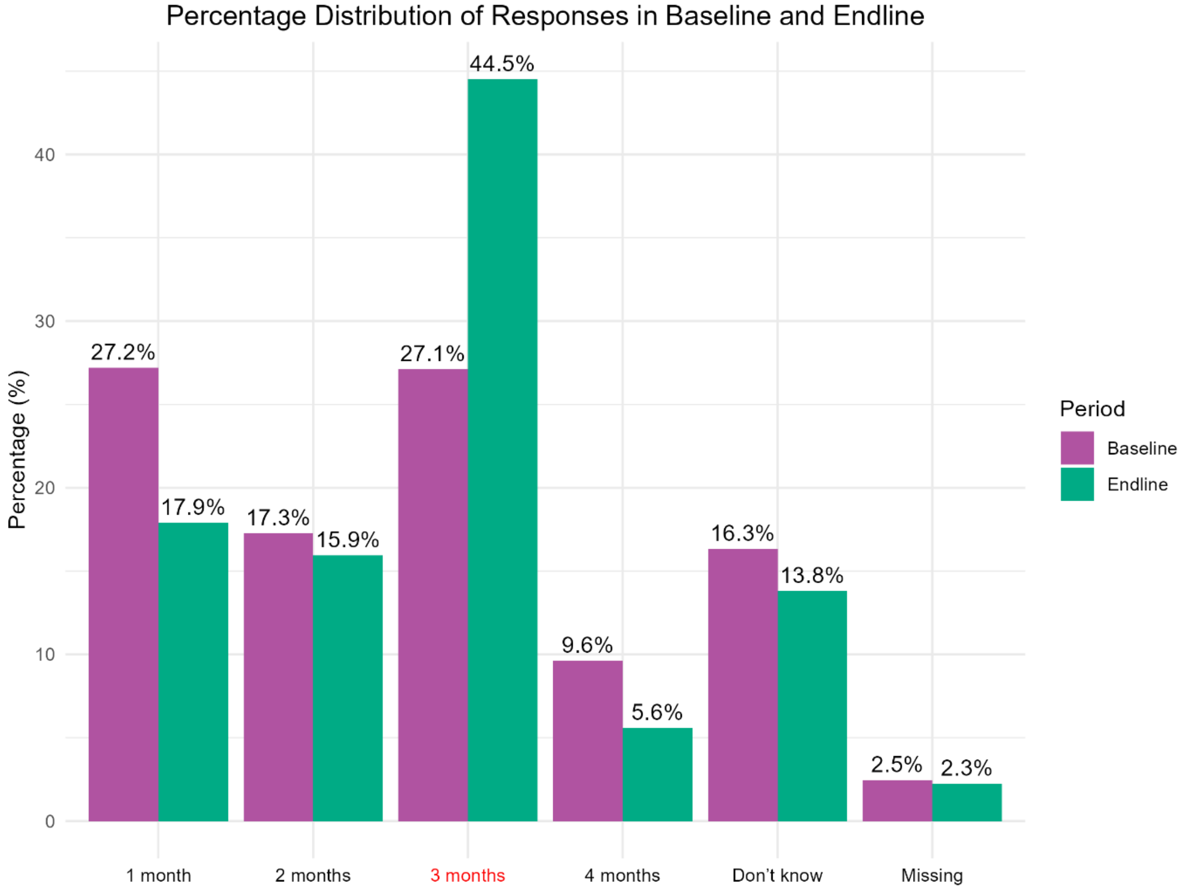


Figure A 9: Distribution of Pupils' Responses to FLQ6 at Baseline and Endline

Question: Fatima has KWD 14. She wants to buy a nice backpack for KWD 7 and buy a new watch for KWD 7. She also must pay 3 KWD to pay her electricity bill. What should she do?

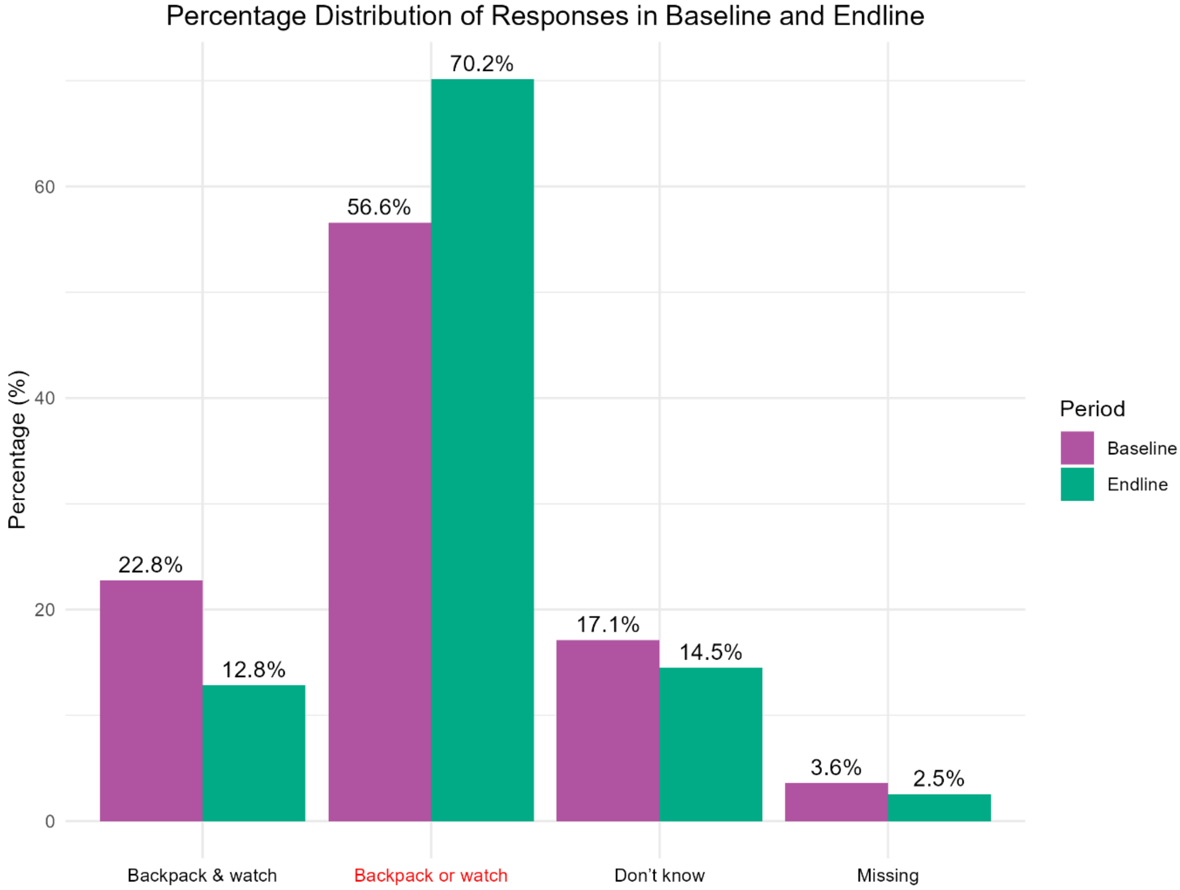


Figure A 10: Distribution of Pupils' Responses to FLQ10 at Baseline and Endline

Question: Bader received KWD 20 as a gift from his aunt. He knows that he will have to pay KWD 5 to pay her internet bill at the end of the month. Kamal goes to a toy shop. What can he buy?

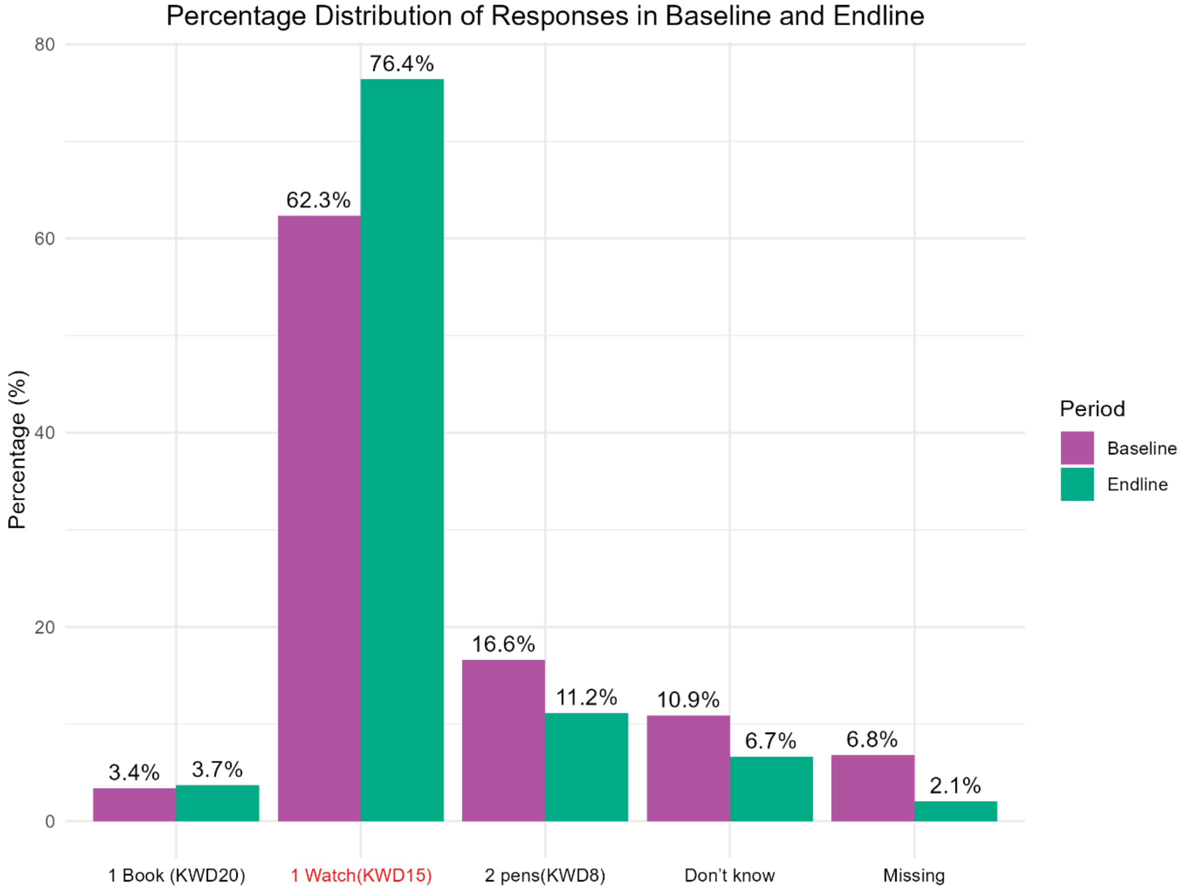


Figure A 11: Distribution of Pupils' Responses to FLQ11 at Baseline and Endline

Question: Ahmad has to pay KWD 150 in rent for his apartment this month, but only has KWD 100 in income. What should he do?

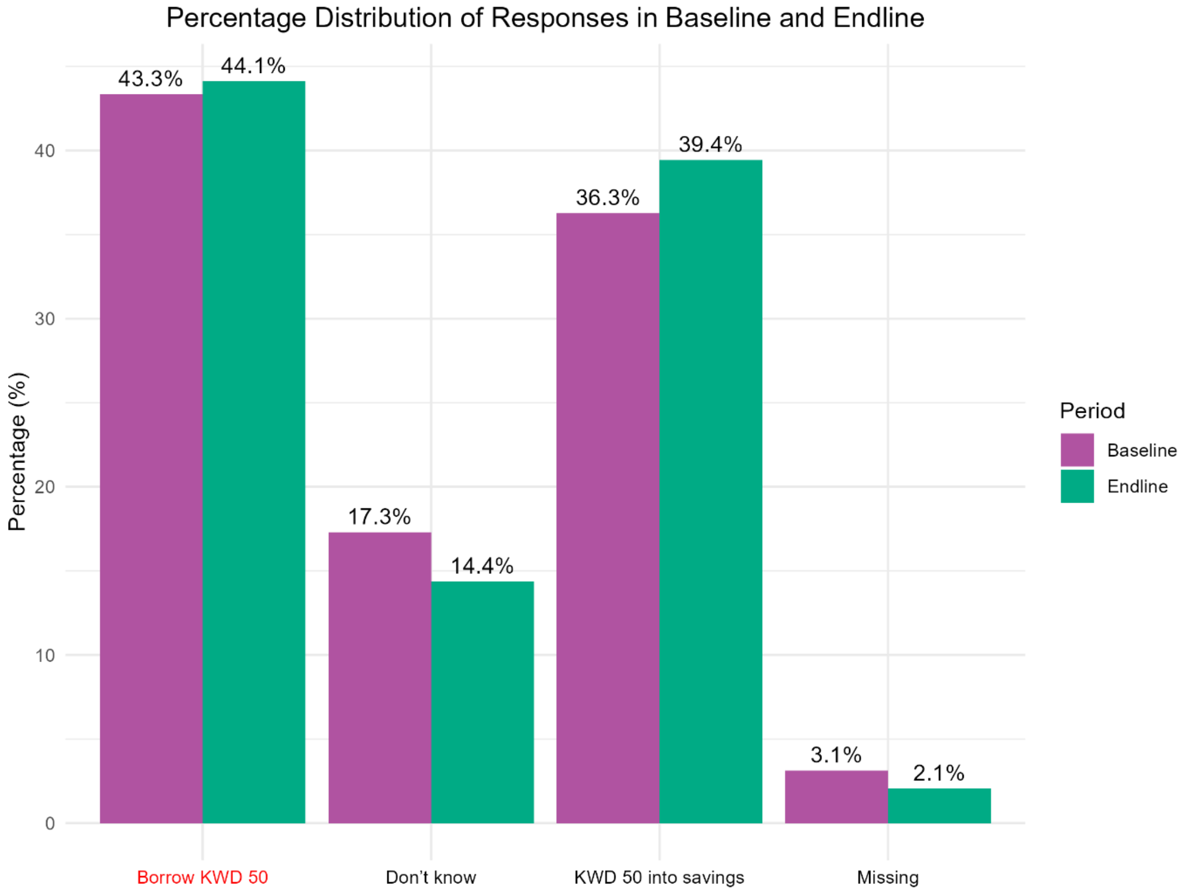
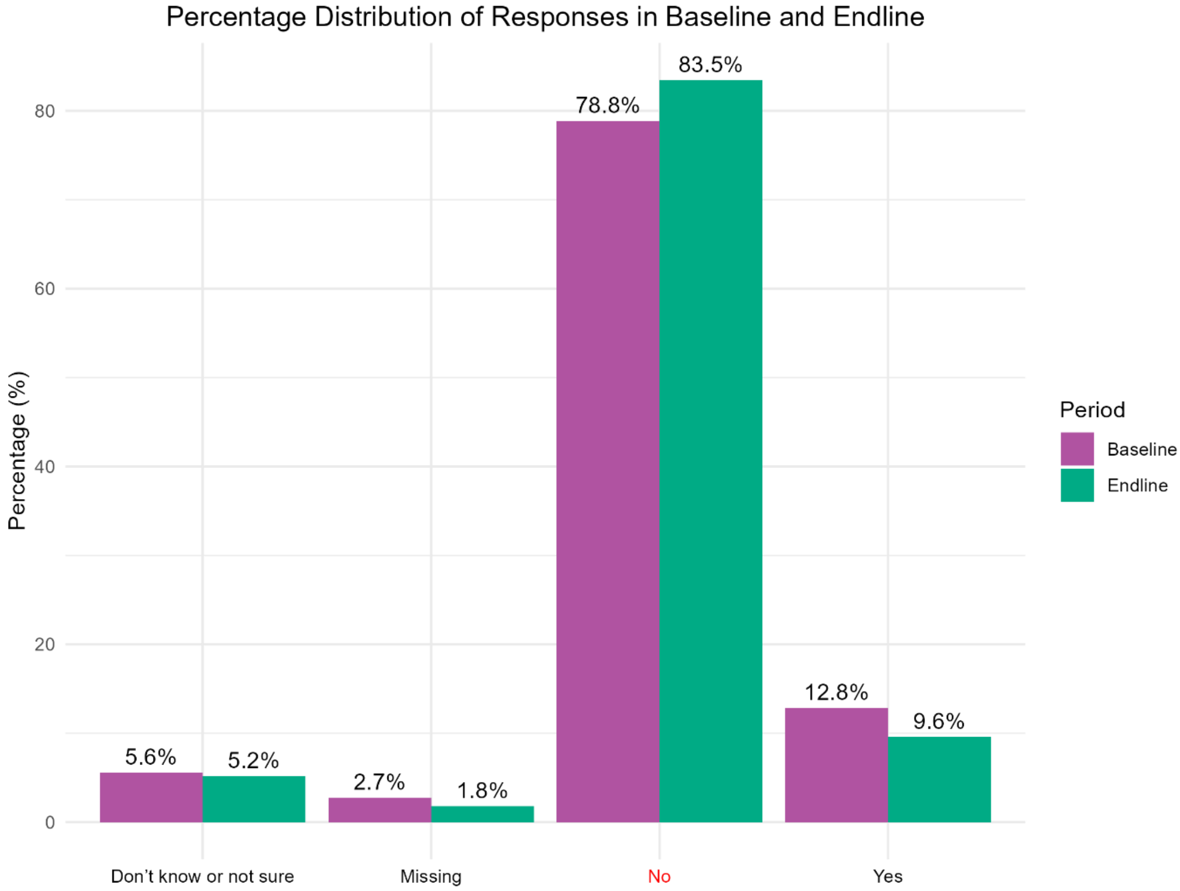


Figure A 12: Distribution of Pupils' Responses to FLQ14 at Baseline and Endline

Question: Reem worries that she may forget her password to access her Bank account. Her friend Sherifa proposes to see her password, so that she could help her remember. Is it safe to share her password with Sherifa?



Financial Behaviour

Figure A 13: Distribution of FLQ12 at Baseline and Endline

Question: Sarah's plastic car just got broken because it was weak. She has KWD 10 to buy a new car. What should Sarah do:

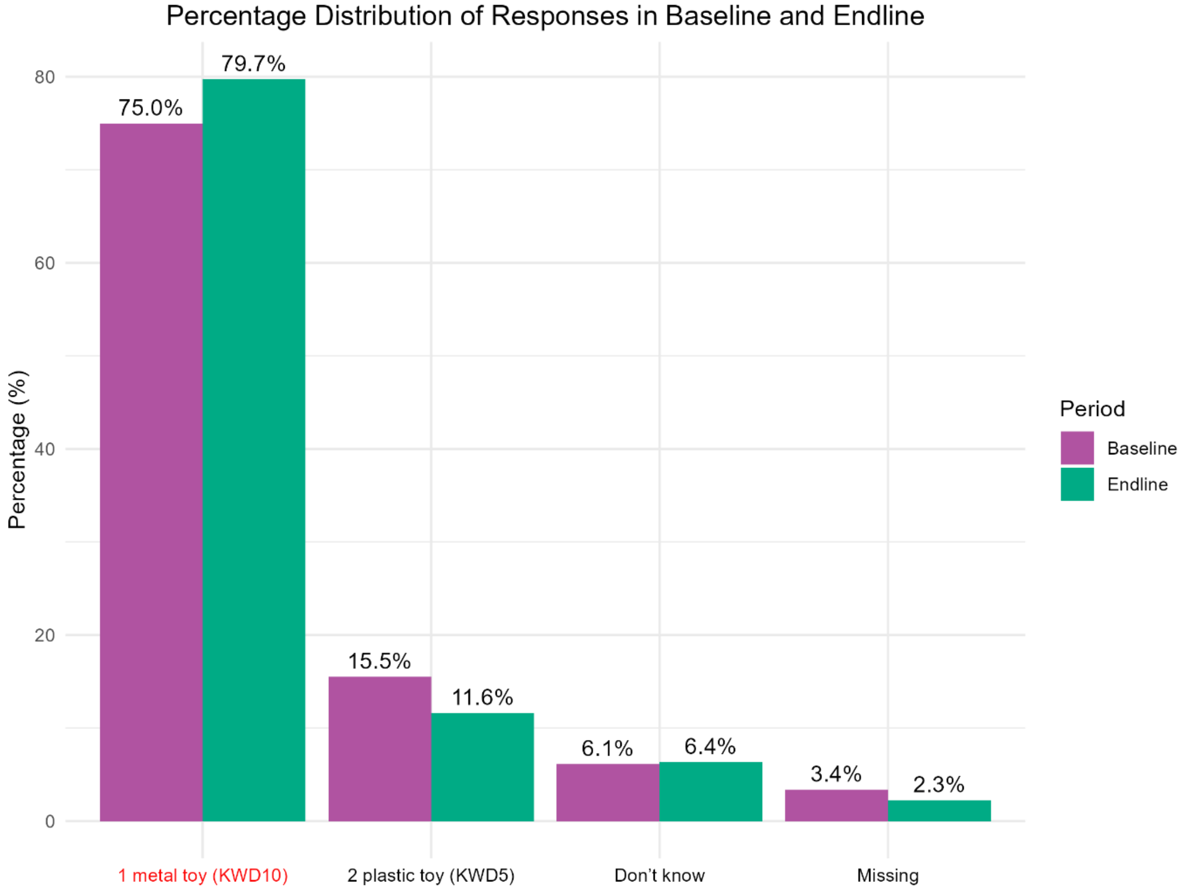


Figure A 14: Distribution of Pupils’ Responses to FLQ13 at Baseline and Endline

Question: How important is it to keep track of how much money you earn and spend using a budget?

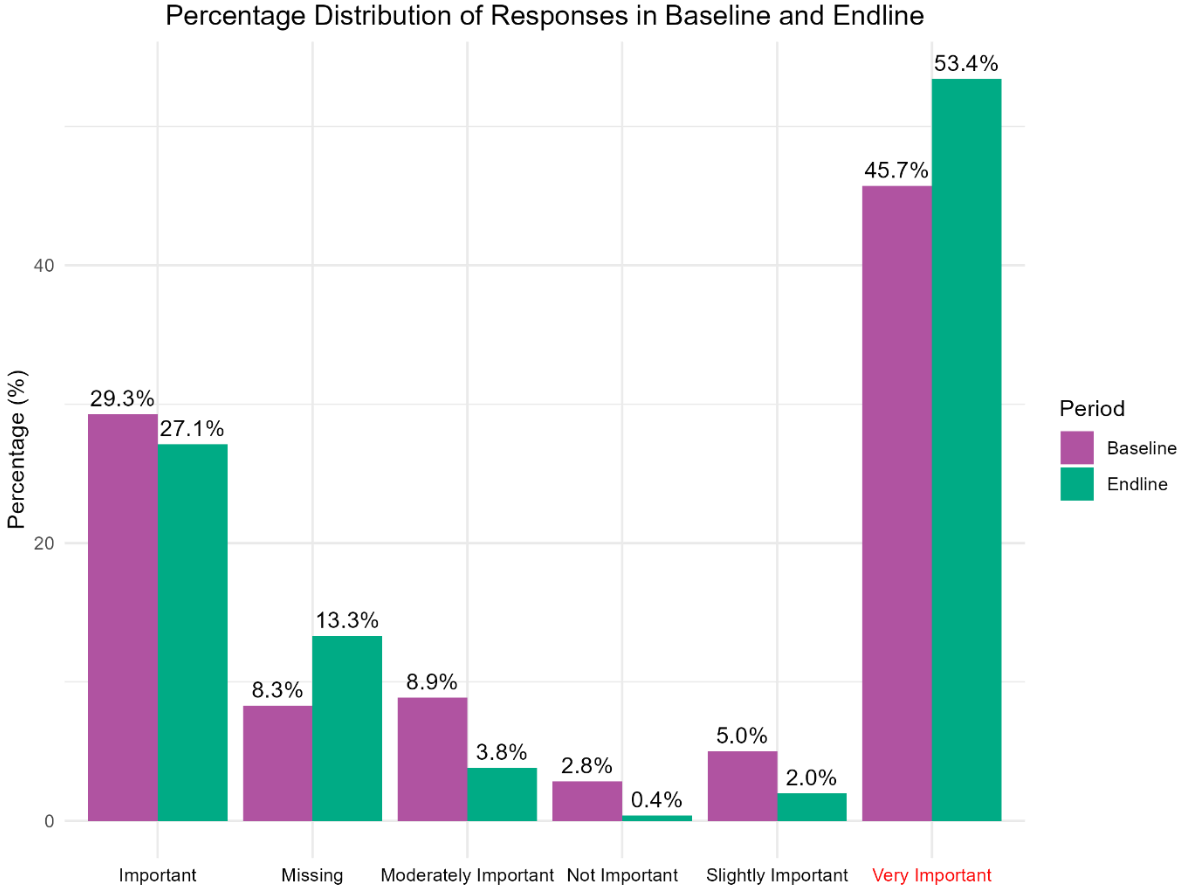


Figure A 15: Distribution of Pupils' Responses to Q3 at Baseline and Endline

Question: Do you ever receive pocket money at home?

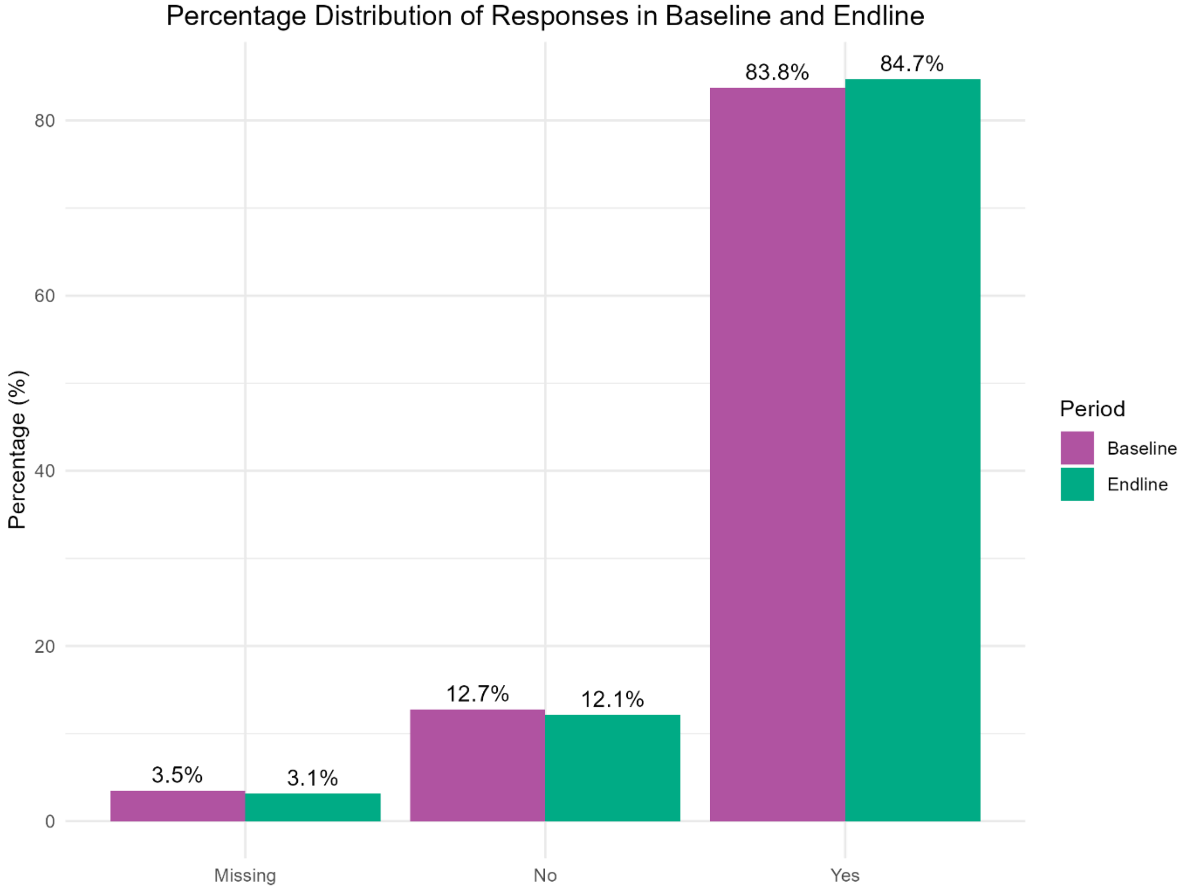
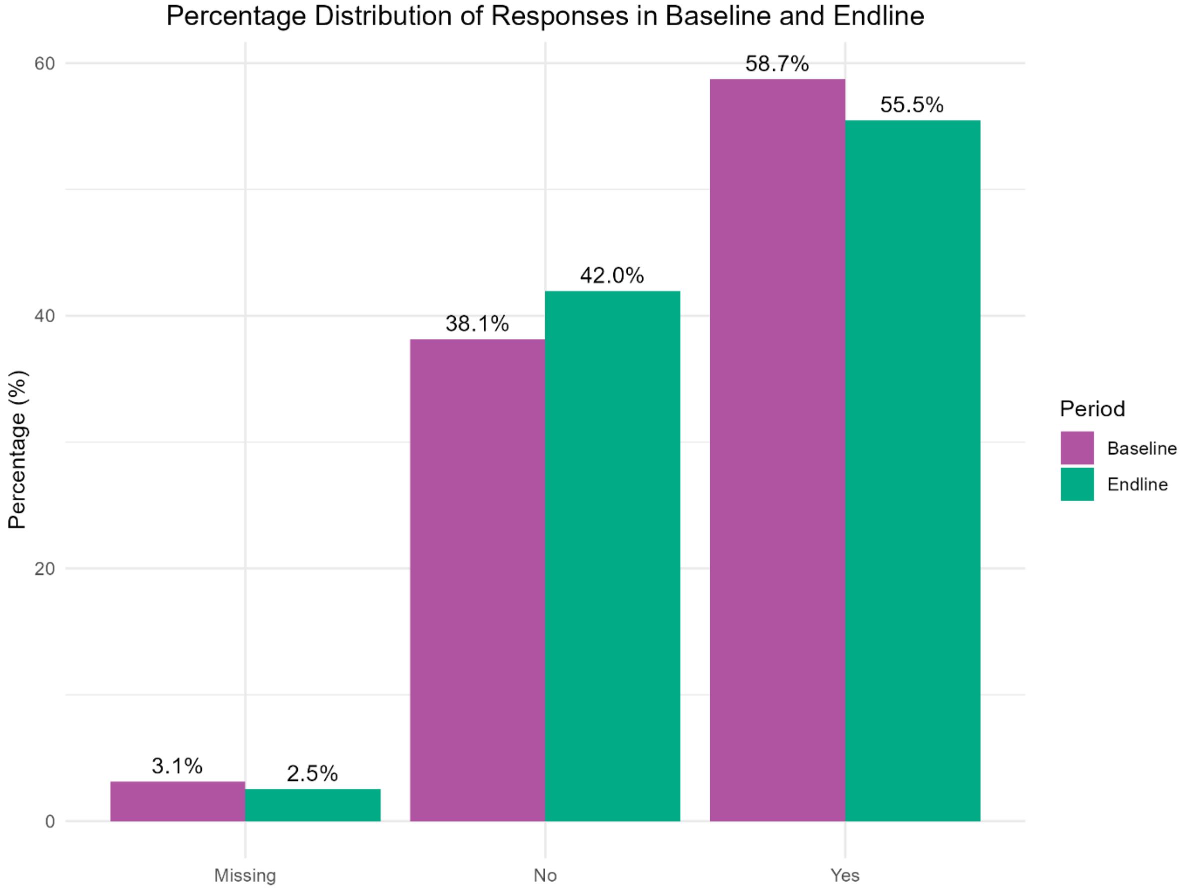


Figure A 16: Distribution of Pupils' Responses to Q4 at Baseline and Endline

Question: Do you ever discuss money issues with your family at home (price of items, rent, savings,…)?



Appendix D: Individual-level results

Table A2: Financial terminology subscale - pupil-level T-test results

Indicator	Baseline mean	Endline mean	Mean difference	% increase	p-value
Marks in financial terminologies	**3.33**	**3.99**	**0.66**	**19.90**	**0.00**
Percentage of marks in financial terminology questions	**56.85**	**67.67**	**10.82**	**19.00**	**0.00**
Financial literacy subscale Q1	**0.39**	**0.55**	**0.16**	**42.60**	**0.01**
Financial literacy subscale Q3	0.39	0.40	0.01	2.80	0.87
Financial literacy subscale Q5	0.65	0.71	0.06	9.90	0.32
Financial literacy subscale Q7	**0.66**	**0.78**	**0.12**	**17.50**	**0.06**
Financial literacy subscale Q8	**0.62**	**0.76**	**0.14**	**22.10**	**0.03**
Financial literacy subscale Q9	**0.72**	**0.82**	**0.11**	**14.70**	**0.05**

Table A3: Financial concept subscale - pupil-level T-test results

Indicator	Baseline mean	Endline mean	Mean difference	% increase	p-value
Marks in financial terminologies	**3.33**	**3.99**	**0.66**	**19.90**	**0.00**
Percentage of marks in financial terminology questions	**56.85**	**67.67**	**10.82**	**19.00**	**0.00**
Financial literacy subscale Q1	**0.39**	**0.55**	**0.16**	**42.60**	**0.01**
Financial literacy subscale Q3	0.39	0.40	0.01	2.80	0.87
Financial literacy subscale Q5	0.65	0.71	0.06	9.90	0.32
Financial literacy subscale Q7	**0.66**	**0.78**	**0.12**	**17.50**	**0.06**
Financial literacy subscale Q8	**0.62**	**0.76**	**0.14**	**22.10**	**0.03**

Financial literacy subscale Q9	**0.72**	**0.82**	**0.11**	**14.70**	**0.05**

Table A4: Financial behaviour - pupil-level T-test results

Indicator	Baseline mean	Endline mean	Mean difference	% increase	p-value
Receives pocket money	0.849	0.903	0.054	6.4	0.254
Money issues discussed at home	0.564	0.574	0.01	1.8	0.859
Financial Behaviour-Q12	0.74	0.78	0.04	5.50	0.45
Financial Behaviour-Q13	**0.86**	**0.95**	**0.09**	**10.90**	**0.03**

Table A 5: Behavioural and emotional problems (SDQ) - pupil-level T-test results

Indicator	Baseline mean	Endline mean	Mean difference	% increase	p-value
External Score (Conduct + Hyperactivity)	6.83	6.47	-0.36	-5.20	0.50
Internal Score (Emotion + Peer)	**7.58**	**6.45**	**-1.13**	**-14.90**	**0.01**
Conduct Score	3.08	2.97	-0.11	-3.70	0.74
Hyperactivity Score	3.75	3.50	-0.25	-6.50	0.39
Emotion score	**4.07**	**3.52**	**-0.55**	**-13.50**	**0.06**
Peer score	**3.51**	**2.93**	**-0.58**	**-16.60**	**0.03**
Prosocial Score	7.20	7.34	0.13	1.80	0.73
Total (External + Internal)	**14.41**	**12.92**	**-1.49**	**-10.30**	**0.08**

Appendix E: Subgroup analysis

This section presents the main findings of the quantitative subgroup analysis. As stressed in section 3.5, this subgroup analysis only relies on descriptive statistics and no statistical test was run to assess the robustness of the observed differences across groups. As a result, one should interpret those findings with caution and not use them to draw general conclusions. Detailed descriptive statistics are reported in Tables A6 to A21.

Financial literacy – terminology subscale

The percentage of correct answers to financial terminology questions improved[3] in similar ways across boys (+7 percentage points) and girls (+8 percentage points). Nevertheless, the overal correct answer rate at endline remained slightly higher for boys (66% against 63% for girls).

Looking at the different questions included in this subscale, gender disparities were found in the understanding of different terminologies. At endline, girls performed better at answering questions about paycheck (FLQ3, +5 percentage points) and where to deposit money (FLQ5, +14 percentage points). Conversly, boys' correct answer rate was higher for questions on profit (FLQ7, +19 percentag points) and salary (FLQ9, +16 percentage points). In terms of pre-post change, girls exhibited higher levels of improvements that boys for FLQ3 (paycheck) and FLQ8 (balance), while the opposite held for FLQ7 (profit) and FLQ9 (salary).

Age was also found to be associated with knowledge of financial terminologies, with older pupils having a slightly higher average percentage of correct responses. At baseline, the share of correct answers to the financial literacy questions was 54% for 9 year olds and 60% for 10 year olds (other age groups are ignored because they include too few children). At endline, the share of correct answers was 63% for 9 year olds, 64% for 10 year olds, and 66% for 11 year olds. Hence, the gap between the different age groups reduced. Even though the baseline and endline samples are mainly made of different pupils and some pupils remained in the same age group during both survey rounds while others moved to the next age, those results suggest that the programme had a larger effect on younger children because they had lower initial knowledge in financial terminologies. Older pupils, on the other hand, were more familiar with some of the Bankee terminologies, thus had lesser room for improvement.

When looking at the different types of schools (public, private, and special needs), the percentage of correct answers increased in the three groups to a similar extend (+7 percentage points in private and special needs school, and +10 percentage points in public schools). If pupils from public and private schools demonstrate similar levels of financial terminology knowledge (61% and 65% of correct answers at endline for private and public schools respectively), this is less the case of pupils with special needs, they the share of correct answers only reached 42% at endline. Note that the analysis sample only included one private and one special need schools, thus results for those two schools types are based on a small number of observations. Moreover, the fact that different pupils took part in the baseline and endline surveys may have resulted in pupils with different characteristics being surveyed at both round.

[3] As mentioned in the note, the comparison of the pre-post change across different subgroups relies on summary statistics only and does not mobilise statistical tests, which means that we cannot test whether the observed difference is robust.

Financial literacy – concept subscale

Comparing the understanding of financial concepts across gender revealed that the performance of boys increased slightly more than that of girls, with a percentage of correct answers improving from 58% to 67% between baseline and endline (+9 percentage points) for boys and from 53% to 60% (+7 percentage points) for girls, resulting in a 7 percentage points gap at endline. This difference may be partly stem from the answer to FLQ2 for which the share of correct answers increased for boys (+5 percentage points) while it decreased for girls (-2 percentage points).

The observed difference in the mastering of financial concepts across genders may highlight different levels of exposure to such concepts outside of school (e.g. with parents or family members), boys being more likely to be involved in such discussion topics. Interestingly, boys and girls exhibited the exact same percentage of correct answers on FLQ14 (password sharing), both at baseline (81%) end endline (87%). This last result suggest that boys and girls performed similarly when asked about gender-nutral concepts such as data security and privacy.

In regard to age, similar findings to those observed on financial terminology emerged , with a narrowing of the age gap at between baseline and endline.

Disaggregating the ananlysis across school types revealed that the share of correct answers to financial concept questions slightly decreased in private (-5 percentage points) and special needs schools (-4 percentage points), while it increased in public schools (+11 percentage points). While sample size issues prevents us from drawing conclusions for the private and special needs schools, this results highlight the substantial progress made in public schools. In private schools, the reduction in the overal correct answer rate was mainly driven by pupils' responses to question FLQ4 for which only 10% found the right answers at endline compared to 29% at baseline. Conversely, pupils in public schools were 48% to chose the correct option at endline against 25% at baseline.

Financial behaviour

If the absence of change is also reflected across gender, 85% of girls indicated preferring quality over quantity at endline, which is higher than amongst boys (78%). From an age angle, younger pupils seemed to have been more likely to incur behavioural changes, with the share of 9 year olds prefering quality over quantity being equal to 76% at baseline and 84% at endline, while that of older children remained constant. Pupils in public schools were more likely to chose quality over quantity (82% at endline) compared to private (72%) and special needs (67%) pupils.

Similarly to previous questions, change in the percentage of respondents reporting that budget tracking is importnat seemed to have been larger for younger pupils. It is worth noting that the share of pupils reporting that budget tracking is important reduced in private schools (80% at endline, down from 98% at baseline), while it substantially increased in special need schools (100% at endline against 70% at baseline).

Pupils' behaviour and wellbeing

Overall, girls exhibited higher levels of difficulties than boys, as summarised by a higher Total SDQ score (14.2 against 11.6 at baseline, 2,6-unit difference). A similar pattern was found across all subscales, with the exception of prosocial behaviour for which girls' score was higher at baseline (7.2 against 6.1, 1.1-unit difference). The gap was largest for the emotional symptoms subscale for which girls scored 4.6 and 4.2 at baseline and endline against 3.0 and 2.8 for boys. Endline results suggest that the gap in the Total SDQ score remained constant, both girls and boys' behaviour and emotional state improving in similar magnitude.

Table A 6: Financial terminology - descriptive statistics across ages

	Age	Baseline mean	Endline mean	Num. Obs. Baseline	Num. Obs. Endline	Mean difference
Percentage of marks in financial terminology questions	7		16.67		1	
	8	45.73	83.33	57	1	37.6
	9	55.04	62.16	425	317	7.12
	10	60.87	65.53	508	499	4.66
	11	57.04	68.62	27	139	11.58
	12		70		10	
FLQ1	7		0		1	
	8	0.11	0	56	1	-0.11
	9	0.26	0.44	413	313	0.18
	10	0.32	0.51	488	489	0.19
	11	0.42	0.57	26	136	0.15
	12		0.6		10	
FLQ3	7		0		1	
	8	0.37	1	57	1	0.63
	9	0.39	0.38	420	311	-0.01
	10	0.37	0.45	496	488	0.08
	11	0.22	0.41	27	136	0.19
	12		0.5		10	
FLQ5	7		0		1	
	8	0.72	1	57	1	0.28
	9	0.69	0.72	417	310	0.03
	10	0.71	0.74	495	494	0.03
	11	0.7	0.65	27	137	-0.05
	12		0.5		10	
FLQ7	7		0		1	
	8	0.61	1	56	1	0.39
	9	0.68	0.71	420	294	0.03
	10	0.79	0.76	501	472	-0.03
	11	0.69	0.8	26	135	0.11
	12		1		10	
FLQ8	7		0		1	
	8	0.51	1	53	1	0.49
	9	0.61	0.77	410	313	0.16
	10	0.72	0.76	498	491	0.04
	11	0.7	0.82	23	137	0.12
	12		0.8		10	
FLQ9	7		1		1	
	8	0.44	1	57	1	0.56
	9	0.68	0.71	413	313	0.03
	10	0.76	0.73	500	488	-0.03
	11	0.73	0.88	26	137	0.15
	12		0.8		10	

Table A 7: Financial concepts - descriptive statistics across ages

	Age	Baseline mean	Endline mean	Num. Obs. Baseline	Num. Obs. Endline	Mean difference
Percentage of marks in value for money questions	7		66.67		1	
	8	43.27	83.33	57	1	40.06
	9	53.02	64.12	425	317	11.1
	10	60.2	63.49	508	499	3.29
	11	49.26	64.12	27	140	14.86
	12		69		10	
FLQ2	7		1		1	
	8	0.42	1	57	1	0.58
	9	0.58	0.52	413	314	-0.06
	10	0.57	0.58	494	492	0.01
	11	0.32	0.61	25	135	0.29
	12		0.7		10	
FLQ4	7		0		1	
	8	0.18	0	57	1	-0.18
	9	0.27	0.48	417	313	0.21
	10	0.3	0.43	497	489	0.13
	11	0.35	0.47	26	138	0.12
	12		0.62		8	
FLQ6	7		1		1	
	8	0.44	1	55	1	0.56
	9	0.54	0.67	419	308	0.13
	10	0.65	0.74	487	489	0.09
	11	0.5	0.83	26	139	0.33
	12		0.7		10	
FLQ10	7		0		1	
	8	0.53	1	55	1	0.47
	9	0.62	0.79	402	313	0.17
	10	0.75	0.79	477	488	0.04
	11	0.58	0.79	24	137	0.21
	12		0.7		10	
FLQ11	7		1		1	
	8	0.31	1	55	1	0.69
	9	0.43	0.52	414	312	0.09
	10	0.49	0.43	493	490	-0.06
	11	0.41	0.34	27	137	-0.07
	12		0.6		10	
FLQ14	7		1		1	
	8	0.78	1	54	1	0.22
	9	0.76	0.89	417	307	0.13
	10	0.87	0.87	495	479	0
	11	0.81	0.84	27	135	0.03
	12		0.89		9	

Table A 8: Financial behaviour - descriptive statistics across ages

	Age	Baseline mean	Endline mean	Num. Obs. Baseline	Num. Obs. Endline	Mean difference
FBQ12	7		0		1	
	8	0.72	1	54	1	0.28
	9	0.76	0.84	414	312	0.08
	10	0.8	0.82	493	489	0.02
	11	0.81	0.81	27	135	0
	12		0.7		10	
FBQ13	7				0	
	8	0.83	1	52	1	0.17
	9	0.77	0.93	386	277	0.16
	10	0.85	0.92	471	447	0.07
	11	0.85	0.95	27	111	0.1

	12		1		9	
Receives pocket money	7		1		1	
	8	0.82	1	55	1	0.18
	9	0.85	0.84	407	314	-0.01
	10	0.89	0.89	498	484	0
	11	0.85	0.92	26	134	0.07
	12		1		10	
Discusses money issues at home	7		1		1	
	8	0.52	0	52	1	-0.52
	9	0.61	0.59	410	315	-0.02
	10	0.62	0.57	502	492	-0.05
	11	0.63	0.56	27	135	-0.07
	12		0.5		10	

Table A 9: Behaviour and wellbeing (SDQ)- descriptive statistics across ages

	Age	Baseline mean	Endline mean	Num. Obs. Baseline	Num. Obs. Endline	Mean difference
Conduct Score	7		3		1	
	8	3.07	1	57	1	-2.07
	9	2.58	2.39	425	317	-0.19
	10	2.76	2.33	509	501	-0.43
	11	3.48	2.31	27	140	-1.17
	12		1.6		10	
Emotion score	7		4		1	
	8	4.51	1	57	1	-3.51
	9	3.78	3.64	425	317	-0.14
	10	3.78	3.41	509	501	-0.37
	11	3.26	3.67	27	140	0.41
	12		2.5		10	
Hyperactivity Score	7		3		1	
	8	3.68	1	57	1	-2.68
	9	3.18	3.35	425	317	0.17
	10	3.54	3.18	509	501	-0.36
	11	3.52	3.51	27	140	-0.01
	12		3		10	
Peer score	7		1		1	
	8	2.77	1	57	1	-1.77
	9	3	3.05	425	317	0.05
	10	3	2.79	509	501	-0.21
	11	2.89	2.81	27	140	-0.08
	12		4		10	
Prosocial Score	7		3		1	
	8	6.91	7	57	1	0.09
	9	6.56	7.57	425	317	1.01
	10	6.72	7.51	509	501	0.79
	11	5.33	7.57	27	140	2.24
	12		7.3		10	
Internal Score (Emotion + Peer)	7		5		1	
	8	7.28	2	57	1	-5.28
	9	6.78	6.7	425	317	-0.08
	10	6.78	6.19	509	501	-0.59
	11	6.15	6.48	27	140	0.33
	12		6.5		10	
External Score (Conduct + Hyperactivity)	7		6		1	
	8	6.75	2	57	1	-4.75
	9	5.76	5.74	425	317	-0.02
	10	6.29	5.51	509	501	-0.78
	11	7	5.82	27	140	-1.18
	12		4.6		10	
Total (External + Internal)	7		11		1	
	8	14.04	4	57	1	-10.04
	9	12.54	12.44	425	317	-0.1
	10	13.07	11.71	509	501	-1.36

	11	13.15	12.3	27	140	-0.85
	12		11.1		10	

Table A 10: Financial terminology - descriptive statistics across gender

	Gender	Baseline mean	Endline mean	Num. Obs. Baseline	Num. Obs. Endline	Mean difference
Percentage of marks in financial terminology questions	Boy	58.81	65.81	544	505	7.00
	Girl	55.31	62.87	499	509	7.56
FLQ1	Boy	0.30	0.51	525	491	0.21
	Girl	0.28	0.48	481	502	0.20
FLQ3	Boy	0.39	0.39	535	493	0.00
	Girl	0.36	0.44	490	498	0.08
FLQ5	Boy	0.64	0.64	530	490	0.00
	Girl	0.75	0.78	491	507	0.03
FLQ7	Boy	0.79	0.85	536	465	0.06
	Girl	0.67	0.66	490	490	-0.01
FLQ8	Boy	0.68	0.76	529	497	0.08
	Girl	0.62	0.75	479	503	0.13
FLQ9	Boy	0.74	0.82	533	492	0.08
	Girl	0.65	0.66	487	504	0.01

Table A 11: Financial concepts - descriptive statistics across gender

	Gender	Baseline mean	Endline mean	Num. Obs. Baseline	Num. Obs. Endline	Mean difference
Percentage of marks in value for money questions	Boy	57.67	66.70	544	506	9.03
	Girl	53.20	60.46	500	509	7.26
FLQ2	Boy	0.59	0.64	526	493	0.05
	Girl	0.52	0.50	488	503	-0.02
FLQ4	Boy	0.31	0.51	531	492	0.20
	Girl	0.24	0.41	491	503	0.17
FLQ6	Boy	0.58	0.73	523	487	0.15
	Girl	0.59	0.71	486	506	0.12
FLQ10	Boy	0.71	0.82	501	496	0.11
	Girl	0.62	0.74	474	500	0.12
FLQ11	Boy	0.48	0.48	524	497	0.00
	Girl	0.41	0.42	491	499	0.01
FLQ14	Boy	0.81	0.87	528	478	0.06
	Girl	0.81	0.87	493	499	0.06

Table A 12: Financial behaviour - descriptive statistics across gender

	Gender	Baseline mean	Endline mean	Num. Obs. Baseline	Num. Obs. Endline	Mean difference
FBQ12	Boy	0.73	0.78	522	491	0.05
	Girl	0.82	0.84	490	503	0.02
FBQ13	Boy	0.82	0.93	477	422	0.11
	Girl	0.82	0.92	487	460	0.10
Receives pocket money	Boy	0.88	0.87	528	489	-0.01
	Girl	0.85	0.88	487	500	0.03
Discusses money issues at home	Boy	0.61	0.55	529	492	-0.06
	Girl	0.60	0.58	490	503	-0.02

Table A 13: Behaviour and wellbeing (SDQ)- descriptive statistics across gender

	Gender	Baseline mean	Endline mean	Num. Obs. Baseline	Num. Obs. Endline	Mean difference
Conduct Score	Boy	2.54	2.37	545	507	-0.17
	Girl	2.87	2.37	500	509	-0.50

Emotion score	Boy	3.05	2.78	545	507	-0.27
	Girl	4.60	4.24	500	509	-0.36
Hyperactivity Score	Boy	3.02	2.95	545	507	-0.07
	Girl	3.73	3.63	500	509	-0.10
Peer score	Boy	2.95	2.75	545	507	-0.20
	Girl	3.01	3.07	500	509	0.06
Prosocial Score	Boy	6.09	7.21	545	507	1.12
	Girl	7.23	7.78	500	509	0.55
Internal Score (Emotion + Peer)	Boy	6.00	5.53	545	507	-0.47
	Girl	7.61	7.31	500	509	-0.30
External Score (Conduct + Hyperactivity)	Boy	5.56	5.32	545	507	-0.24
	Girl	6.60	6.00	500	509	-0.60
Total (External + Internal)	Boy	11.56	10.85	545	507	-0.71
	Girl	14.21	13.30	500	509	-0.91

Table A 14: Financial terminology - descriptive statistics across school types

	School types	Baseline mean	Endline mean	Num. Obs. Baseline	Num. Obs. Endline	Mean difference
Percentage of marks in financial terminology questions	Public	57.58	64.88	986	948	7.30
	Private	54.15	61.40	45	50	7.25
	Special	40.00	46.83	25	21	6.83
FLQ1	Public	0.29	0.51	954	925	0.22
	Private	0.20	0.32	45	50	0.12
	Special	0.29	0.05	17	20	-0.24
FLQ3	Public	0.36	0.39	968	922	0.03
	Private	0.78	0.90	45	50	0.12
	Special	0.26	0.33	23	21	0.07
FLQ5	Public	0.70	0.72	963	930	0.02
	Private	0.49	0.50	45	50	0.01
	Special	0.88	0.62	24	21	-0.26
FLQ7	Public	0.75	0.75	969	931	0.00
	Private	0.60	0.88	45	8	0.28
	Special	0.29	0.76	24	21	0.47
FLQ8	Public	0.68	0.78	949	934	0.10
	Private	0.29	0.50	45	50	0.21
	Special	0.28	0.48	25	21	0.20
FLQ9	Public	0.70	0.74	964	930	0.04
	Private	0.91	0.82	44	50	-0.09
	Special	0.42	0.52	24	21	0.10

Table A 15: Financial concepts - descriptive statistics across school types

	School types	Baseline mean	Endline mean	Num. Obs. Baseline	Num. Obs. Endline	Mean difference
Percentage of marks in value for money questions	Public	55.60	64.66	987	949	9.06
	Private	56.07	50.80	45	50	-5.27
	Special	46.07	42.38	25	21	-3.69
FLQ2	Public	0.57	0.58	960	927	0.01
	Private	0.26	0.32	43	50	0.06
	Special	0.52	0.38	21	21	-0.14
FLQ4	Public	0.28	0.48	965	929	0.20
	Private	0.29	0.10	45	49	-0.19
	Special	0.17	0.10	23	21	-0.07
FLQ6	Public	0.58	0.72	954	926	0.14
	Private	0.78	0.84	45	49	0.06
	Special	0.32	0.52	22	21	0.20
FLQ10	Public	0.67	0.80	920	932	0.13
	Private	0.64	0.63	45	49	-0.01
	Special	0.50	0.35	22	20	-0.15
FLQ11	Public	0.45	0.45	957	932	0.00
	Private	0.52	0.31	44	48	-0.21

	Special	0.40	0.57	25	21	0.17
FLQ14	Public	0.81	0.88	961	911	0.07
	Private	0.87	0.82	45	50	-0.05
	Special	0.83	0.62	24	21	-0.21

Table A 16: Financial behaviour - descriptive statistics across school types

	School types	Baseline mean	Endline mean	Num. Obs. Baseline	Num. Obs. Endline	Mean difference
FBQ12	Public	0.78	0.82	956	928	0.04
	Private	0.69	0.72	45	50	0.03
	Special	0.77	0.67	22	21	-0.10
FBQ13	Public	0.81	0.94	903	817	0.13
	Private	0.98	0.80	45	49	-0.18
	Special	0.70	1.00	23	20	0.30
Receives pocket money	Public	0.88	0.89	956	921	0.01
	Private	0.75	0.50	44	48	-0.25
	Special	0.77	1.00	22	21	0.23
Discusses money issues at home	Public	0.60	0.57	959	927	-0.03
	Private	0.64	0.54	45	48	-0.10
	Special	0.68	0.38	22	21	-0.30

Table A 17: Behaviour and wellbeing (SDQ)- descriptive statistics across school types

	School types	Baseline mean	Endline mean	Num. Obs. Baseline	Num. Obs. Endline	Mean difference
Conduct Score	Public	2.77	2.36	989	951	-0.41
	Private	1.96	2.42	45	50	0.46
	Special	1.96	3.05	25	21	1.09
Emotion score	Public	3.83	3.51	989	951	-0.32
	Private	3.87	3.20	45	50	-0.67
	Special	2.48	3.76	25	21	1.28
Hyperactivity Score	Public	3.40	3.30	989	951	-0.10
	Private	2.73	2.68	45	50	-0.05
	Special	2.88	4.19	25	21	1.31
Peer score	Public	3.00	2.86	989	951	-0.14
	Private	3.22	3.26	45	50	0.04
	Special	1.96	4.00	25	21	2.04
Prosocial Score	Public	6.60	7.55	989	951	0.95
	Private	8.18	7.34	45	50	-0.84
	Special	3.96	4.86	25	21	0.90
Internal Score (Emotion + Peer)	Public	6.83	6.38	989	951	-0.45
	Private	7.09	6.46	45	50	-0.63
	Special	4.44	7.76	25	21	3.32
External Score (Conduct + Hyperactivity)	Public	6.17	5.66	989	951	-0.51
	Private	4.69	5.10	45	50	0.41
	Special	4.84	7.24	25	21	2.40
Total (External + Internal)	Public	13.0	12.03	989	951	-0.97
	Private	11.78	11.56	45	50	-0.22
	Special	9.28	15.00	25	21	5.72

National Centre
for Social Research