

Bankee Surveys Piloting and Validation

Authors: NatCen International, NatCen's Centre for Evaluation, NatCen's Questionnaire Development Centre
Prepared for: Creative Confidence Consultancy Company

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

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Executive Summary

This report documents the 2024–25 phase of Bankee’s evaluation, led by NatCen International with Creative Confidence Consultancy (CCCC), in which three bilingual survey instruments were designed, piloted, and psychometrically tested to support continuous monitoring and future impact evaluation in Kuwaiti primary schools. The tools comprise a Financial Literacy & Behaviour (FL/FB) survey for teachers, a Classroom Behaviour (CB) survey for teachers, and a parallel CB survey for principals. Their purpose is to produce reliable, decision-useful evidence about pupils’ financial knowledge and day-to-day behaviours in school, with instruments intended for repeated use across yearly cycles as Bankee scales.

The report focuses on instrument development, the pilot fieldwork and achieved sample, and the validation results that underpin readiness for pre–post evaluation rather than on programme impact claims.

Development approach (co-production and bilingual design)

Instrument development followed an iterative, co-production approach across NatCen’s Questionnaire Development Centre, Evaluation, and International teams working weekly with CCCC. Early technical workshops shaped the survey architecture - question flow, routing, loop limits, and online programming notes - and set expectations for bilingual drafting and translation. Drafts were refined against the programme’s Theory of Change and Bankee Programme documentation (for example, the bonuses/fines lists, the 2023-2024 Bankee Programme Evaluation Report), as well as pre-existing validated tools and literature on financial literacy and students’ classroom behaviour, with an explicit emphasis on reducing respondent burden while preserving measurement coverage. Because a formal cognitive-interview stage was not feasible within this round, the team embedded a structured “feedback” module inside the pilot instruments (closed-ended ratings plus open-text prompts) to surface issues of length, clarity, flow, and contextual fit from all respondents at scale; this mechanism does not replace cognitive interviews but offers a pragmatic safeguard when schedules or field constraints prevent in-depth probing.

Pilot and achieved sample

The pilot achieved a single round of data collection across 12 Bankee schools. Approximately 293 teachers and 12 principals participated with in-session consent. Teachers completed both the Classroom Behaviour survey (Arabic n=256; English n=28) and the FL/FB survey (Arabic n=264; English n=29). The principal sample was smaller (Arabic n=10; English n=2), which proved sufficient for reliability checks but not for factor analysis. This dataset establishes a descriptive baseline and provides the empirical foundation for validation and refinement ahead of future, repeated measurement.

What the instruments measure (constructs and alignment)

Conceptually, the teacher FL/FB instrument operationalises financial literacy for children in Bankee’s context by covering understanding of core terms and concepts (e.g., saving, budgeting, pricing, value), decision-making and responsibility, information and privacy practices, and the application of learning to real-life situations in and beyond classroom routines.

The CB instruments, for both teachers and principals, are organised into five behaviour domains that align with Bankee’s practice: Kindness & Respect, Following Rules, Readiness to Learn, Engagement, and Collaboration. These behaviour domains were designed to be practical in day-to-day observation and to map onto areas where Bankee seeks change.

Psychometric testing (what changed and why it matters)

Psychometric testing proceeded in staged fashion.

For teacher FL/FB, an initial confirmatory factor analysis suggested the intended structure was conceptually reasonable but statistically inefficient, with overlapping content across some subscales. Exploratory factor analysis then identified natural clusters - core Bankee topics and basic banking concepts grouping tightly; information-safety items forming a distinct cluster; and a small set of “value of money” items showing dual affinities that made them less coherent as an independent factor. Guided by these patterns, the revised model trimmed weaker or contradictory items, reassigned a small number to their empirically stronger home, and removed the stand-alone “value” factor while retaining its core ideas inside broader financial-concept and pricing/budgeting content. The amended model yielded materially better fit (e.g., CFI $\approx$ 0.91; TLI $\approx$ 0.90; RMSEA $\approx$ 0.052; SRMR $\approx$ 0.057 on $n\approx$ 209), providing an economical structure that better reflects how teachers actually judge pupils’ understanding and behaviour.

Reliability was excellent overall (total $\alpha\approx$ 0.95) and good across most subscales, supporting use with light pruning.

For the teacher CB instrument, factor analysis supported the intended five-domain framework while making visible a natural proximity between Engagement and Collaboration in classroom practice. Rather than over-engineer the structure, the team retained all five domains and refined wording where items overlapped or were potentially ambiguous (for example, clarifying what “outside the classroom” covers and favouring positively framed stems to reduce method effects).

Internal consistency was high overall ($\alpha\approx$ 0.94) and within each domain, indicating stable measurement without sacrificing breadth.

The principal CB instrument performed coherently on reliability, bearing in mind the small sample that limits generalisability and precludes factor analysis at this stage. One domain, Following Rules, initially returned a lower α ($\approx$ 0.65), which improved to $\approx$ 0.77 after removing two items that did not behave well in this context—mirroring the teacher instrument’s structure and sharpening the construct for future waves.

User experience feedback collected through the embedded module suggests that the large majority of teachers did not volunteer comments - interpretable as general acceptability or neutrality - while those who did highlighted three practical themes: the desire for a shorter, less repetitive instrument; occasional clarity issues in Arabic wording; and a preference for online link-based administration with flexible windows.

What the pilot data show (descriptive - do not infer impact)

Descriptive findings from the teacher FL/FB responses indicate that public-school teachers - working in settings where Bankee is more deeply integrated - consistently rated pupils’ understanding higher than private-school teachers, particularly on terminology intrinsic to Bankee’s platform (salary, bonus, fines) and on applied concepts like budgeting, pricing, saving, and the “value of money”. Within public schools, the predominant pattern clustered in the “quite well” and “very well” categories across most topics; private-school distributions followed the same shape with smaller counts per category, reflecting later or lighter adoption. These are context signals rather than impact results and align with the programme’s implementation landscape.

Teacher reports on classroom behaviour were also positive overall. Kindness & Respect emerged as a strong area, with large shares of students perceived to act pro-socially and to resolve conflicts constructively; Engagement and Collaboration were frequently rated “often” or “always”, with qualitative notes reinforcing the idea that participation and group work are commonplace where Bankee is actively used. Readiness to Learn showed generally solid focus, preparedness, and self-regulation, though teachers still noted distraction and disruption as recurrent, if not dominant, challenges - an observation consistent with the psychometric proximity between “being on task” and “working well with others”. Principals’ views broadly echoed these patterns, though their vantage point and the small n mean such signals should be interpreted cautiously.

Respondents also used the space to make programme suggestions in the open-text questions, calling for stronger curriculum integration, a more usable digital platform or app aligned with classroom realities, expanded reward

options for older students, and opportunities to bring parents into the loop through portals or workshops. These insights informed the refinements reported above and point directly to near-term improvement work for CCCC.

Limitations (and their implications)

Limitations are important for funders and decision-makers. By design, this pilot is a one-wave snapshot: it validates tools and describes perceptions at a point in time but cannot evidence change or causality. The principal sample was small, which limits generalisability and prevents factor analysis; subsequent rounds should aim for a larger, more balanced leadership sample. Although translation and review were careful, some cross-language nuance persisted, especially in a few Arabic terms flagged by teachers. Most notably, the absence of formal cognitive interviewing - the gold standard for uncovering how respondents interpret and reason through items - could leave residual ambiguity in how some questions are understood; the embedded feedback module mitigated this by collecting structured open-text reactions at scale. Taken together, these constraints do not undermine the core conclusion that the instruments are fit for purpose; rather, they indicate clear priorities for strengthening the next round.

How to use these surveys in future pre-post evaluations

Looking forward, the surveys are ready to be embedded in a pre-post design that can test change over time. The report provides sample-size options suitable for detecting small effects under realistic power assumptions - such as a design with 20 schools and 10 teachers per school (with at least three shared pupil groups) or 50 schools with five teachers per school (with at least two shared groups) - along with guidance on how class-sharing patterns influence power. Stratified selection is recommended to preserve representativeness across Bankee's 88 schools, balancing old versus new participants, school type (girls' public, boys' public, private), and, for public schools, governorates. In practice, this means committing to a baseline at the start of the school year, a follow-up after implementation, consistent administration protocols, and as much respondent continuity as feasible, especially among teachers.

Finally, because Bankee is a live programme, the surveys must remain synchronised with its evolution. When digital features, reward structures, or curriculum integration change, the instruments should be updated accordingly and re-tested for validity and reliability so that constructs remain stable and scores remain comparable across time. The present pilot demonstrates that this is achievable within a bilingual, system-wide context: the teacher tools are psychometrically robust; the principal tool is workable with targeted refinements; and the feedback loop gives CCCC a practical mechanism to keep usability and cultural fit in view. With a powered, stratified pre-post rollout, complemented by cognitive interviews in the next cycle, CCCC and policymakers will have a credible, repeatable way to track progress, diagnose needs, and make evidence-based decisions at scale.

1. Introduction

1.1 About this report

This report presents the results of the 2024–2025 phase of the Bankee programme evaluation, led by NatCen International in partnership with Creative Confidence Consultancy and Training Institute (CCCC). It focuses on the design, piloting, and validation of three tailored survey instruments intended for long-term use in the annual evaluation of the Bankee programme:

- A financial literacy and behaviour survey for teachers
- A classroom behaviour survey for teachers
- A parallel classroom behaviour survey for principals

These tools were developed to be used to generate reliable, actionable data on pupils' financial literacy and behavioural outcomes in the classroom environment. The aim is to support CCCC and its partners in continuously monitoring and improving the Bankee programme and measuring its long-term impact across schools in Kuwait. Ultimately, these instruments are intended for repeated use in future annual evaluations to support both programme effectiveness and continuous improvement.

The report is structured as follows:

Chapter 1 introduces the programme context, outlines the rationale for the survey development, and provides key definitions and background.

Chapter 2 details the methodology used to design and validate the survey tools, including an overview of the piloting process and the psychometric analyses conducted to ensure reliability and validity.

Chapter 3 presents a descriptive analysis of survey responses gathered during the pilot phase, along with the results of statistical validation and reliability testing.

Together, these chapters provide a comprehensive account of the evaluation tool development process and lay the foundation for future assessments of the Bankee programme's effectiveness.

1.2 Defining and measuring Financial Literacy in the context of Bankee in primary schools in Kuwait

A contextualised understanding of financial literacy has been critical to designing and piloting the Bankee questionnaire. Existing literature offers multiple definitions. For example, Lusardi & Mitchell (2014) describe financial literacy as “the ability to process economic information and make informed decisions about planning, wealth accumulation, debt, and pensions”¹. The OECD defines it more broadly as “a combination of awareness, knowledge, skills, attitudes, and behaviours necessary to make sound financial decisions and achieve financial wellbeing”². When adapted for children, definitions emphasise understanding money management concepts and being able to relate them to personal experiences^{3,4}.

In the Bankee programme, these elements are contextualised to the realities of Kuwaiti elementary school students. Bankee defines financial literacy as children's knowledge of money concepts (saving, budgeting, giving, spending) and their ability to apply these skills in both classroom and real-life settings^{5,6}. NatCen's survey design therefore measured both financial knowledge and financial management behaviours of participating students, grounded in the Kuwaiti economy and educational context.

See Table 1 below for a comparison of the different definitions of financial literacy and how they were contextualised to the Bankee programme and the Kuwaiti educational context.

Approach to developing the Financial Literacy and Financial Behaviour Survey

The financial literacy and behaviour survey was co-created by NatCen (QDT, Evaluation, and International teams) and CCCC. Survey items were developed drawing on literature reviews, 2023–2024 evaluation documents, Theory of Change findings, and iterative reviews with CCCC. Reliability and validity testing, led by the Evaluation team, guided decisions on inclusion or exclusion of items and ensured the finalised survey produced robust, meaningful results for future evaluations. Details of the approach can be found in Section 2. Methodology.

1.3 Defining and measuring Classroom Behaviour in the context of Bankee in primary schools in Kuwait

The concept of classroom behaviour has also been approached from different perspectives. Similar to the process of understanding and using the term financial literacy, the NatCen team also ensured varied and contextualised understandings of the term classroom behaviour. Specifically, following the 2023-2024 Bankee Evaluation¹, findings and recommendations indicated that the Bankee programme had potential to affect and address behavioural challenges in the classroom with perceptions of the initiative as enhancing pupils’ financial literacy and promoting positive behavioural changes.

Batty et al. (2016) discuss the role of incentives and fines in shaping behaviour within financial literacy interventions³. Hasanov & Brandišauskienė (2025) define positive behaviour as responsibly following rules, responding constructively to teacher guidance, self-regulating, and engaging actively⁴. By contrast, Anbarasu & Bhuvaneswari (2020) define disruptive behaviour as any behaviour that interferes with learning or teaching effectiveness⁵.

For Bankee, these definitions were adapted to reflect the programme’s incentive-based system of bonuses and fines. In this context, classroom behaviour refers to students’ engagement in collaborative and respectful conduct, adherence to Bankee’s rules and incentive structure, and capacity to self-regulate within financial learning activities.

See Table 1 below for a comparison of the different definitions of classroom behaviour and how they were contextualised to the Bankee programme and the Kuwaiti educational context.

Approach to developing the Classroom Behaviour test

Similar to the development of the financial literacy and financial behaviour survey, the classroom behaviour survey was co-created by NatCen (QDT, Evaluation, and International teams) and CCCC. Items were informed by 2023–2024 evaluation documents, Bankee’s fines and bonuses system, the BASC-3 BESS framework, Theory of Change findings, and iterative reviews with CCCC. Reliability and validity testing, led by the Evaluation team, guided item selection and ensured the final survey would generate reliable, meaningful results for future evaluations. Details of the approach can be found in Section 2. Methodology.

Table 1. Existing definitions and Bankee’s contextualisation

Concept	Existing definitions	Common elements	Bankee contextualisation
Financial literacy	• OECD: knowledge, skills, attitudes, behaviour to make sound financial decisions. • Lusardi & Mitchell: ability to process economic information and make informed decisions about planning, debt, pensions. • Child-focused: understanding money management concepts and describing own experiences.	Knowledge, behaviour, decision-making, responsibility .	In Bankee, financial literacy is defined as students’ understanding of money concepts (saving, budgeting, giving, spending) and their ability to apply these in classroom and real-life situations , reinforced through Bankee’s hands-on platform.

¹ Abdallah, D., Poquillon, G., Kersting, F., Tai, S., & Upadhya, N. (2024). Bankee Evaluation: Final Report. Prepared for Creative Confidence Consultancy and Training Institute, National Banke of Kuwait, Anti-Corruption Authority of Kuwait and the Ministry of Education of Kuwait.

Classroom behaviour	• Hasanov & Brandišauskienė: responsible rule-following, constructive responses, engagement. • Anbarasu & Bhuvaneswari: disruptive behaviour as interference with learning/teaching. • Batty et al.: incentives and fines to shape behaviour.	Rule-following, engagement, social interaction, disruption management .	In Bankee, classroom behaviour is measured through students' adherence to Bankee's incentive system (bonuses and fines), their engagement in collaborative and respectful classroom conduct, and their capacity to self-regulate within a financial learning context.
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2. Methodology

This section describes the process used to develop, pilot, and refine the Bankee survey instruments. It covers (1) development of survey items, (2) psychometric testing procedures, and (3) final item selection. Supplementary technical details (including item lists, sample breakdowns, statistical outputs, and translation processes) are provided in Appendix A.

Appendix A contains extended information that supports but is not essential to the main text. This includes:

- QDT workshop process framework
- Complete Cronbach's alpha details by subscale/item (summary retained in-text)
- Item–total correlation analysis results (which items were flagged/removed)

2.1 Development of survey items

The development of survey items for the financial literacy, financial behaviour, and classroom behaviour surveys for teachers and principals was an iterative and co-creative process, involving both CCCC as well as the International and QDT teams at NatCen. To begin, an internal workshop was held at NatCen by the QDT team who specialize in Methods and designing questionnaires and surveys fit for the diverse range of surveys developed and used at NatCen. This two-hour workshop involved preparatory guidelines, tips, and process advisory (see Figure 1) for the survey development process, all customized to the international and bilingual nature of the Bankee survey requirements.

See section A2.1 in Appendix A for the workshop framework and translation process.

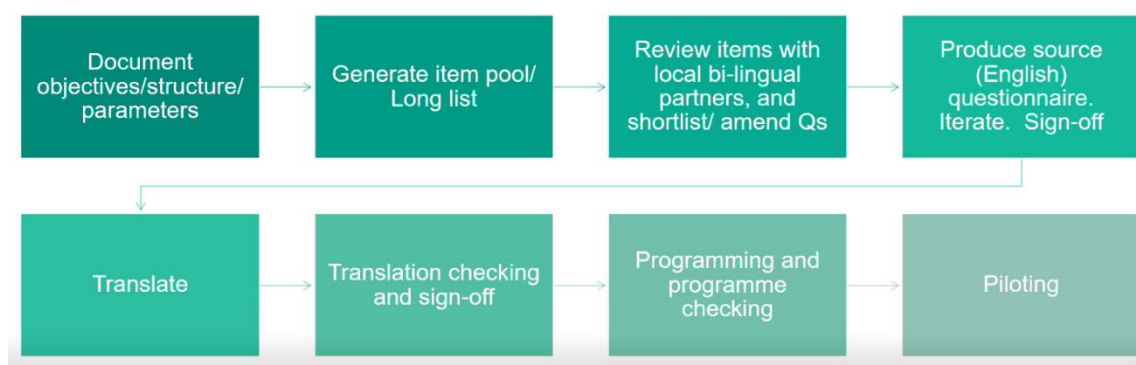


Figure 1 - QDT workshop process framework

2.2 Psychometric testing

Data collection

One round of data collection was carried out with around 293 teachers and 12 principals by CCCC staff. Twelve schools were targeted for the data collection. Table 2 provides a breakdown of the achieved sample highlighting the number of teachers who completed the classroom behaviour survey, the financial literacy survey and those who completed them in Arabic vs. English. Table 3 provides a breakdown of the achieved sample highlighting the number of principals who completed the classroom behaviour survey in Arabic vs. English.

Table 2. Achieved Teacher Sample Size

Survey	Arabic	English
Classroom Behaviour	256	28

Financial Literacy & Behaviour	264	29
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Table 3. Achieve Principal Sample Size

Survey	Arabic	English
Classroom Behaviour	10	2

To pilot the surveys and assess their validity and reliability, data was collected from teachers and principals across 12 *Bankee-participating and implementing schools in Kuwait.

For teachers, CCCC staff conducted on-site visits and gathered participating teachers in a classroom setting within each school. During these sessions, participants were provided with an online survey link that included both the financial literacy and behaviour survey and the classroom behaviour survey. Teachers were given approximately one hour to complete the surveys and provide feedback on the clarity, relevance, and usability of the questions. A short break was offered between the two surveys to reduce fatigue and allow participants time to reflect before continuing.

For principals, CCCC staff visited each school individually and met with the school principal in their office, where they were provided with a separate online link to complete the classroom behaviour survey designed specifically for school leadership.

In both cases, informed consent was obtained immediately prior to survey completion via an online consent form sent to participants on the spot. All participants were fully debriefed before consent was requested, ensuring they understood the purpose of the pilot and how their data would be used.

Validity testing: Confirmatory Factor Analysis (CFA) and Exploratory Factor Analysis (EFA)

To assess construct validity, we initially planned to conduct confirmatory factor analysis (CFA) for the teacher survey instruments. CFA is a statistical technique used to test whether observed survey items group together in the way hypothesised by the tool's theoretical structure - in other words, whether the items correspond to the conceptual subscales the survey was designed to measure.

In the case of the Teacher Classroom Behaviour survey, the theoretical structure was based on five clearly defined behavioural domains:

- Kindness and Respect (e.g., kindness towards peers and staff, respectful behaviour),
- Following Rules (e.g., adherence to classroom and school rules, avoidance of misconduct),
- Readiness to Learn (e.g., focus, self-regulation, goal-setting, preparedness),
- Engagement (e.g., participation in discussions and activities),
- Collaboration (e.g., teamwork, academic support, conflict resolution).

Each set of Likert-style items within the survey was designed to correspond to one of these conceptual areas. Together, they represent a multi-dimensional model of classroom behaviour, aligned with the programme's goals of promoting positive behavioural, emotional, and cognitive outcomes among pupils.

In CFA, we sought to confirm whether this structure - i.e., the hypothesised grouping of items into five distinct but related factors - fit the observed pilot data. Similarly, the Teacher Financial Literacy and Behaviour survey was designed around a theoretical framework comprising multiple subscales such as Financial Knowledge, Financial Behaviour, Financial Responsibility, and so forth.

For the Financial Literacy and Behaviour Survey, the theoretical structure comprised conceptual domains reflecting knowledge, attitudes, and habits promoted by Bankee:

- Understanding of Financial Terminology and Concepts
- Understanding the Value of Money
- Attitudes Towards Financial Behaviour
- Ability to Make Financial Decisions (e.g. saving, donating, and considering long-term goals)
- Financial Responsibility and Goal-Setting (e.g. planning purchases, budgeting, and learning from mistakes)
- Privacy and Personal Financial Information (e.g. safeguarding account details, tracking balances, and checking change)
- Application of Bankee Learning to Real-Life Contexts

Model fit was assessed using standard indices (e.g. CFI, TLI, RMSEA, SRMR), which evaluate how well the data aligns with the expected structure. However, due to poor to moderate fit indices in the teacher surveys - particularly for the Financial Literacy survey - and the complexity of the models, we concluded that a purely confirmatory approach was not sufficient.

We therefore conducted exploratory factor analysis (EFA) as an supplementary approach. EFA does not assume a pre-set structure; instead, it allows the data to determine how items cluster together, offering insights into whether the observed factors align with the intended subscales or suggest alternative groupings. This was especially valuable for refining the tools before future waves of data collection and validation.

Due to small sample size, we did not conduct CFA or EFA on the Principal Classroom Behaviour survey. Although the principal survey follows the same conceptual structure as the teacher version - with domains such as Attitudes, Rules, Academic Behaviour, Engagement, and Collaboration - the number of principal respondents in the pilot was not large enough to support meaningful factor analysis

Reliability testing

To assess the internal consistency of the survey instruments and their respective subscales, we used Cronbach's alpha. This statistic measures the extent to which items within a scale are correlated and thus likely to be measuring the same underlying construct. Alpha values above 0.70 are considered acceptable; above 0.80, good; and above 0.90, excellent.

See section A2.2 in Appendix A for more details on the reliability testing.

Embedded feedback

As part of the survey piloting and validation process, it was important to gather structured feedback from respondents on their experience of completing the instruments. This was particularly relevant because, although the long-term aim of the project is to create survey tools that will be used in the pre-post evaluation of the Bankee programme next year, in this initial phase we only conducted a single round of data collection. We were therefore unable to carry out cognitive interviews - a recommended step in survey development for probing how respondents interpret and process survey questions.

To partially address this limitation and capture respondent perspectives, we incorporated a dedicated feedback section at the end of both the Classroom Behaviour and Financial Literacy surveys for Teacher and Principal surveys.

The feedback section served two primary purposes:

- Identifying usability and comprehension issues that could affect data quality, such as unclear wording, inappropriate length, or logical flow problems.

- Gathering qualitative suggestions from respondents to inform revisions before the surveys are deployed in the full pre–post evaluation.

Please see Section A2.2 in Appendix A for a detailed description of the structure of the feedback section, the rationale for including one and how we used the data gathered from that section to inform the final survey structure and items.

2.3 Final selection of survey items

After receiving the final data from the pilot surveys, data were divided into qualitative and quantitative data and sorted by Arabic and English teachers and principals. Answers were translated to English for analysis and qualitative answers were divided into psychometric survey feedback and questions to other open-ended questions termed factor feedback. Following the description of methodology outlined in section 3.6, our team first collated psychometric survey feedback and identified several recurring themes arising in open-text feedback, including comments with reference to survey length, clarity, programme feedback, etc.

For the quantitative strand, the pilot survey data were first cleaned to remove incomplete or inconsistent responses and prepared for psychometric testing. We then undertook a structured sequence of analyses to assess the reliability and validity of the survey items.

First, internal consistency was examined using reliability statistics (Cronbach's alpha) to identify items that contributed weakly to their respective constructs. Items with low item–total correlations or which negatively affected scale reliability were flagged for review.

Second, we applied Confirmatory Factor Analysis (CFA) to test the hypothesised factor structure derived from the original survey design. Initial models showed areas of poor or moderate fit, particularly within the Financial Behaviour and Financial Responsibility domains. To address this, items that demonstrated cross-loadings, high residuals, or poor factor loadings were removed or reassigned.

Third, we conducted Exploratory Factor Analysis (EFA) to allow the data to indicate a more coherent factor structure. This helped us to identify underlying latent dimensions where the original structure did not hold. Items with strong loadings on emergent factors and clear conceptual alignment were retained, while weaker or redundant items were removed.

The iterative process of CFA and EFA enabled us to restructure the survey into a revised model with substantially improved fit indices. The final version balanced psychometric robustness (good model fit and internal consistency across subscales) with conceptual coverage (ensuring the key domains of financial literacy and behaviour targeted by the Bankee programme were represented).

In this way, the quantitative analyses provided an evidence base for refining the instrument: eliminating poorly performing items, retaining core items that demonstrated strong psychometric properties, and restructuring domains to better reflect observed student responses. These findings, combined with qualitative feedback (see below), informed the final set of survey items used for evaluation.

Alongside the psychometric testing, we incorporated insights from the qualitative feedback provided by teachers and principals. Once the pilot survey data were received, responses were divided into quantitative and qualitative datasets and sorted by Arabic- and English-speaking participants. All open-text responses were translated into English for analysis and coded into two categories: (1) psychometric survey feedback, referring to comments directly about the survey instrument, and (2) factor feedback, referring to responses to broader open-ended questions.

Following the methodology outlined in Section 3.6, our team first collated psychometric survey feedback and identified several recurring themes. These included comments on survey length, item clarity, and overall programme relevance. Through thematic analysis, we summarised patterns in the feedback, noted how frequently concerns were raised, and highlighted illustrative quotes to capture respondents' perspectives. This analysis was critical in assessing items for duplication, unclear wording, or misalignment with intended constructs.

We also conducted thematic analysis of factor feedback, which included questions on observed differences in students' understanding of financial literacy, experiences of using Bankee with students who have learning differences, broader effects of Bankee on classroom behaviour, and general reflections on the programme. These responses helped us identify themes that were not fully captured by the original survey design. In turn, this guided the refinement of survey content to ensure items were both relevant to teachers' experiences and comprehensive in covering the domains of interest.

Taken together, this qualitative feedback served as an important complement to the reliability and validity testing. It provided context to support decisions about item retention, removal, or revision and ensured that the final survey captured the nuances of teachers' and principals' experiences with the Bankee programme. Original and Final Surveys can be found in Appendices C, D and E. Items comparisons and removals can be found in Appendix F.

3. Results

This section presents the findings from the Bankee pilot surveys and is divided into two main parts.

- **Section 3.1 (Survey Results):** Describes the responses provided by teachers and principals, including descriptive statistics on demographics, school context, and detailed ratings of students' financial literacy, financial behaviour, and classroom behaviour. Qualitative feedback from open-text responses is also summarised to provide contextual insights into teachers' and principals' perspectives.
- **Section 3.2 (Psychometric Results):** Reports on the validity and reliability testing of the survey instruments. This includes confirmatory and exploratory factor analyses, reliability statistics (Cronbach's alpha), and interpretation of item performance. Where applicable, adjustments made to improve survey structure are highlighted.

Together, these sections first show how the survey instruments performed in practice and what the data revealed about students, before turning to the statistical testing that underpins the robustness of the tools for future evaluation.

3.1 Survey Results

3.1.1 Financial Literacy (Teachers only)

Descriptive Statistics

Demographics and School Context

Teachers in the sample included 264 from Arabic-medium public schools and 29 from English-medium private schools. There was a somewhat even split between boys' and girls' schools for public schools, while all English teachers were from mixed-gender settings. The teachers sampled from Arabic speaking (public) schools had strong representation across all primary grades, with subject teaching concentrated in Islamic Studies, Arabic, and Science. As for the teachers sampled from the private (English speaking) schools fewer teachers were sampled per grade, with Mathematics, English, and Science the most common subjects taught. For more details, see Table 4 below.

Table 4. Demographics & School Context

	Number	Gender		Type		Grade				
		Boy	Girl	Public	Private	1	2	3	4	5
Arabic Public Schools	264	144	120	264	0	194	211	193	183	162
English Private Schools	29	0	0	0	29	4	6	9	4	12

	Subject										
	Arabic	English	Math	Science	Music	Islamic Studies	Social Studies	Sports	Computer	Art	Other
Public	50	37	25	39	4	51	21	18	7	10	4
Private	0	26	28	25	1	0	9	2	11	0	3

Understanding of Financial Literacy

Public school teachers consistently rated students' understanding of financial terminology and concepts higher than Private school teachers. This likely reflects the broader and longer-term integration of Bankee in public schools, where the programme has been scaled nationally, compared to a potential more limited adoption in private schools. It suggests that terminology uptake is context-dependent and reinforced through school-wide implementation.

Across Public schools, the majority of teachers rated student understanding of **budgeting** as "quite well" (n = 113) or "very well" (n = 85), with smaller groups selecting "not very well" (n = 46) or "not at all well" (n = 9). For **charity/giving**, ratings were even more positive, with most choosing "very well" (n = 162) or "quite well" (n = 83), and few indicating lower levels.

Similarly high ratings were seen for **financial planning** (n = 114 "quite well," n = 70 "very well") and **pricing** (n = 110 "quite well," n = 82 "very well"). Understanding of **saving** and **spending** followed the same pattern, with large majorities in the top two categories - e.g., saving: n = 109 "quite well" and n = 108 "very well"; spending: n = 104 "quite well" and n = 127 "very well." **Value of money** had the highest "very well" responses (n = 136) alongside 90 "quite well" ratings.

In Private schools, patterns were similar though with smaller counts per category. For example, in **budgeting**, ratings were split between "quite well" (n = 11) and "very well" (n = 5), with a few in lower categories.

Charity/giving skewed towards "very well" (n = 18) and "quite well" (n = 7). For **financial planning**, most responses were in "quite well" (n = 11) or "very well" (n = 7). **Pricing** and **saving** each had balanced high ratings - e.g., pricing: 11 "quite well," 11 "very well"; saving: 7 "quite well," 17 "very well." Understanding of **spending** was also strong (12 "quite well," 13 "very well"), while **value of money** saw 13 "quite well" and 10 "very well" responses.

See Table B1 in Appendix B for more details.

Financial Terminologies

Knowledge of terms such as salary, bonus, and fines was especially strong, particularly in Arabic schools where these terms are central to the Bankee platform. Reports that most students used these terms in activities and discussions indicate Bankee has become embedded in classroom routines. In English schools, uptake was also positive but slightly less widespread, hinting at less reinforcement outside structured activities.

Teachers in Public schools generally rated students' knowledge of financial terminology as high across all seven concepts. For **paychecks/salary**, most responses were "very well" (n = 148) or "quite well" (n = 81), with smaller numbers in the lower categories. Understanding of **bonus terminology** was particularly strong, with 223 "very well" ratings and 33 "quite well." Similarly, for **fines**, the majority rated students "very well" (n = 189) or "quite well" (n = 55).

For **balance terminology**, 183 teachers selected "very well" and 60 "quite well." In **transaction terminology**, the most common ratings were "quite well" (n = 113) and "very well" (n = 96), with fewer selecting lower categories. Knowledge of **account terminology** was also high, with 93 "quite well" and 89 "very well" responses. Finally, for

ATM terminology, most responses were “very well” (n = 106) or “quite well” (n = 90), though this item had slightly more “not very well” responses (n = 44) than the others.

In Private schools, the same general pattern emerged but with smaller numbers. Most teachers rated student understanding as “quite well” or “very well” across all concepts. For example, **bonus terminology** received 18 “very well” and 11 “quite well” ratings; **finances** had 15 “very well” and 14 “quite well”; and **ATM terminology** showed a balanced split between “quite well” (n = 11) and “very well” (n = 5), with a slightly higher proportion of mid-range scores in some topics such as **transactions** and **accounts**.

See Table B2 in Appendix B for more details.

Furthermore, the data from the survey showed that in Public schools, teachers most frequently reported observing students using financial terminology **in school activities or games** (n = 152) and **during classroom discussions with teachers** (n = 130), followed by **peer-to-peer conversations** (n = 89). Fewer reported seeing this through **feedback from parents** (n = 31) or indicated that they had **not observed** such use (n = 15).

When asked where they believed students learned these terms, the most common response was **interacting with Bankee** (n = 216), followed by **conversations with teachers** (n = 122) and **conversations with peers or friends** (n = 79).

In Private schools, a similar pattern emerged, though on a smaller scale. Teachers most often observed usage during **school activities or games** (n = 22) and **classroom discussions** (n = 18), with fewer reports from **peer-to-peer conversations** (n = 9). As in Public schools, **interacting with Bankee** (n = 22) was the most cited source of learning, followed by **conversations with teachers** (n = 18) and **conversations with peers or friends** (n = 9).

Concepts about Money

Both groups of teachers reported that students understood trade, value, and spending choices well. However, public school teachers reported more consistent understanding across all concepts. Private school teachers showed proportionally more mid-range responses, suggesting variability depending on exposure and practice.

In Public schools, teachers overwhelmingly rated students as understanding that **money has value** either “very well” (n = 181) or “quite well” (n = 72), with very few in the lower categories. Understanding that **money enables the buying and selling of goods** received the strongest ratings overall, with 227 “very well” and 32 “quite well” responses.

For the concept of **where day-to-day money comes from**, most teachers selected “very well” (n = 142) or “quite well” (n = 96), though 19 chose “not very well” and 2 “not at all well.” The idea that **spending requires making choices** was also rated positively, with 102 “very well” and 115 “quite well” responses, but had a slightly higher proportion of “not very well” (n = 36) than other concepts.

In Private schools, the same ranking of strengths was observed: **trade** was most highly rated, with 21 “very well” and 7 “quite well” responses; **value of money** followed closely (14 “very well,” 11 “quite well”); **day-to-day sources of money** (5 “very well,” 13 “quite well”) and **spending choices** (12 “very well,” 9 “quite well”) were also positively rated, though they had proportionally more “not very well” responses than the top concepts.

See Table B3 in Appendix B for more details.

Understanding Value of Money as a Concept

Students in both contexts showed strong awareness of cost, quality, and distinguishing needs from wants, indicating Bankee’s success in embedding core decision-making principles. Some weaker understanding of financial obligations suggests an area where additional emphasis could strengthen outcomes.

In Public schools, understanding that **increasing the quantity of items bought increases overall cost** was rated “very well” by 102 teachers and “quite well” by 116, with smaller numbers selecting “not very well” (n = 34) or “not at all well” (n = 1). Recognition that **higher quality items may have higher prices** was similarly high, with 117 “very well” and 104 “quite well” responses.

Knowledge that **wants are different from needs** was also strong, with 120 “very well” and 102 “quite well” ratings, and very few in the lower categories. For **financial obligations**, responses were slightly more varied: 112 “very well” and 93 “quite well,” but also 46 “not very well” and 5 “not at all well.” Finally, understanding that **pocket money has real value compared to Bankoz currency** had 135 “very well” and 93 “quite well” ratings, with few lower responses.

In Private schools, patterns were similar though on a smaller scale. For **quantity and cost**, 8 teachers selected “very well” and 11 “quite well,” while for **quality and price**, 12 chose “very well” and 11 “quite well.” Distinguishing **wants from needs** had slightly lower top-category counts (7 “very well,” 9 “quite well”) but still showed positive trends. **Financial obligations** had 6 “very well” and 7 “quite well” responses, while **pocket money value** understanding was higher, with 9 “very well” and 12 “quite well” responses, and no “not at all well” ratings.

See Table B4 in Appendix B for more details.

Financial Concepts

More abstract concepts such as bank statements and current accounts were less well understood, especially in English schools. This indicates that while Bankee is building basic literacy, more complex financial products remain challenging and may require additional scaffolding.

In Public schools, understanding of **budget as a concept** was high, with 111 “quite well” and 74 “very well” responses, though 57 teachers rated this as “not very well” and 9 as “not at all well.” Knowledge of **how to stay safe when buying online** was similarly positive, with 118 “quite well” and 68 “very well” ratings, but also 65 “not very well.”

For **bank statements**, ratings were more varied, with 99 “quite well” and 48 “very well,” alongside 92 “not very well” and 12 “not at all well.” Understanding of **debit** was stronger, with 100 “quite well” and 82 “very well” ratings, while **savings account** understanding was similarly high (106 “quite well,” 66 “very well”) but had 64 “not very well” responses. Finally, knowledge of **current accounts** saw 95 “quite well” and 62 “very well” responses, but 70 “not very well” and 20 “not at all well.”

In Private schools, patterns were broadly similar but with smaller sample sizes and slightly lower top-category counts. For **budget**, 8 “quite well” and 6 “very well” responses were recorded, with 14 “not very well” and 1 “not at all well.” **Online safety** understanding was evenly split across categories (4 “quite well,” 4 “very well,” 17 “not very well”). **Bank statement** understanding was low compared to other concepts, with only 3 “quite well” and 2 “very well” ratings, and most responses in “not very well” (n = 15) or “not at all well” (n = 6). **Debit** knowledge was higher (10 “quite well,” 1 “very well”), while **savings account** and **current account** understanding varied, with both having relatively modest “very well” responses (4 and 2, respectively) and more “not very well” ratings.

See Table B5 in Appendix B for more details.

Spending Behaviour, Observed Financial Literacy, and Attitudes Towards Money

Most teachers in public schools observed that students budgeted their spending gradually during field trips, suggesting that Bankee may be encouraging planning and delayed gratification—key objectives of financial literacy education. However, around 15% still reported impulsive spending, highlighting a subset of students who may benefit from targeted or differentiated support.

Spending behaviour during field trips showed a clear preference for planned expenditure. In Public schools, the largest group of teachers (n = 126) reported that students **budgeted to spend gradually throughout the day**, rather than using all their funds at once. This was followed by saving for a specific purchase such as a gift shop item (n = 48) and spending all funds immediately upon arrival (n = 40). Smaller proportions noted students buying items for themselves and peers (n = 24), saving money to donate later (n = 5), or behaviours categorised as “N/A” (n = 21). Private school teachers observed a similar pattern, with budgeting (n = 9) and spending at once (n = 10) most common, alongside some saving for gifts or donating.

When asked whether they had **observed differences in students' understanding of financial literacy**, the majority of teachers reported that they had. In Public schools, 212 teachers answered "Yes" compared to 43 who answered "No." The trend was similar in Private schools, with 24 "Yes" and only 3 "No" responses.

Teachers also provided views on the **appropriate age for developing good financial habits and attitudes**. Most Public school teachers believed this process should start in early primary years — ages 5–7 (n = 112) or ages 8–10 (n = 100). A smaller number suggested starting before school age (<5 years, n = 28) or later in adolescence (ages 11–13, n = 20; over 14 years, n = 4). Private school teachers largely echoed this preference for starting young, with 19 selecting ages 5–7 and 5 selecting ages 8–10.

Across the attitude-related items, teachers' ratings indicated generally **positive financial dispositions** among students:

- **Keen to develop good financial habits:** In Public schools, 113 teachers agreed and 84 strongly agreed with this statement. Private school school responses were also positive, though on a smaller scale (n = 16 agree, n = 2 strongly agree).
- **Confidence in spending decisions:** Teachers' ratings were highly favourable in Public schools, with 106 agreeing and 83 strongly agreeing that students were confident decision-makers. Private school school ratings showed a similar tendency, though with more variation.
- **Feeling anxious when making financial decisions:** Responses were more mixed, suggesting variability in student comfort levels. In Public schools, 51 agreed that students felt anxious, but a nearly equal number (n = 48) disagreed, indicating a diversity of observed behaviours.
- **Belief that saving is important:** Teachers overwhelmingly endorsed this statement, with 100 agreeing and 87 strongly agreeing in Public schools. Private school school teachers provided similarly positive feedback, with most choosing "agree" or "strongly agree."
- **Comfort in asking for financial advice :** Teachers in Public schools reported strong willingness among students to seek guidance, with 101 agreeing and 109 strongly agreeing. Private school school ratings were also positive, though with more mid-range "neither agree nor disagree" responses.
- **Pride in managing money well:** This item received the most consistently positive ratings. In Public schools, 174 teachers strongly agreed and 69 agreed, suggesting that students feel a strong sense of accomplishment when managing their money or account balances effectively. Private school teachers also reported high levels of observed pride.

See Table B6 in Appendix B for more details.

Financial Decisions

Pocket money and saving habits were widely reported, especially in public schools, with charitable giving also common. These findings suggest that Bankee reinforces habits of saving, budgeting, and sharing, though frequency varied across school types.

Across Public schools, the majority of teachers indicated that **most students (n = 136)** receive pocket money, followed by smaller groups where all students (n = 59) or some students (n = 38) receive it. Only a small number of teachers reported that none of their students receive pocket money (n = 6). The pattern in Private schools was similar but on a smaller scale, with most responses falling under "some" (n = 14) or "most" (n = 9).

Regarding saving behaviours, teachers' observations suggest that students generally demonstrate positive saving habits. In Public schools, the largest group of teachers reported that students **often** (n = 105) or **sometimes** (n = 96) save part of their pocket money instead of spending it immediately, with 25 teachers noting that this occurs **always**. Only a small proportion reported "never" (n = 3) or "rarely" (n = 30). In Private schools, saving behaviours were slightly less frequent, with most teachers selecting "sometimes" (n = 13) or "often" (n = 8).

Teachers also rated students' engagement in charitable giving. In Public schools, this behaviour was observed most often, with 98 teachers reporting that students **often** donate money and 83 reporting "sometimes," while 55 teachers indicated that students **always** demonstrate this behaviour. Only a very small number reported that students never or rarely donate. Private schools showed a similar, albeit smaller-scale, pattern, with most responses in the "sometimes" (n = 10) and "often" (n = 8) categories.

See Table B7 in Appendix B for more details.

Financial Responsibility

Students showed progress in purposeful saving and planning, though variation in forward thinking and distinguishing needs from wants highlights scope for differentiated teaching. Allowing students to learn from mistakes was seen as important, signalling that Bankee also supports resilience in financial decision-making.

In Public schools, saving with a clear purpose was common. When it comes to students saving to buy specific items, the majority of teachers reported "most" students (n = 148) engaged in this behaviour, followed by "all" (n = 70) and "some" (n = 12). A smaller group of 25 responses were marked "N/A." Private schools reflected similar patterns, though in smaller absolute numbers, with "most" (n = 20) and "some" (n = 1) being the most common.

Students saving for items of better quality showed a similar profile: in Public schools, "some" (n = 157) and "most" (n = 67) were the leading responses, followed by "all" (n = 7) and "none" (n = 9). Private schools reported predominantly "some" (n = 19) and "most" (n = 6).

Thinking ahead about what to do with money was positively rated. In Public schools, most teachers said students thought ahead "often" (n = 95) or "always" (n = 82), with fewer reporting "sometimes" (n = 64) or "rarely" (n = 15). In Private schools, "often" (n = 10) and "always" (n = 3) were most frequent.

Taking responsibility for saving for something wanted also received high agreement. Public school teachers most often selected "often" (n = 95) or "always" (n = 48), with 90 reporting "sometimes" and small counts for "rarely" (n = 22) or "never" (n = 2). Private schools followed the same general pattern, with "often" (n = 7) and "sometimes" (n = 12) leading.

Finally, **freedom to make mistakes with money and learn from them** was widely reported but slightly more varied. In Public schools, most teachers said this happened "often" (n = 94) or "sometimes" (n = 77), with smaller numbers selecting "always" (n = 44), "rarely" (n = 32), or "never" (n = 4). Private schools also reported higher rates of "often" (n = 6) and "sometimes" (n = 9) than "always" (n = 4).

See Table B8 in Appendix B for more details.

Financial Information and Safety

Results from teachers' ratings suggests that students strongly endorse and understand the importance of privacy and tracking, suggesting these are well-communicated messages. However, planning and explaining spending decisions received more mixed ratings in English schools, implying opportunities to strengthen self-reflection on financial choices.

When asked about **not sharing their account number/password**, Public school teachers overwhelmingly rated this as "very important" (n = 159) or "quite important" (n = 50), with smaller counts for "not very important" (n = 33) or "not at all important" (n = 4). Private schools also leaned strongly towards "very important" (n = 18) and "quite important" (n = 9).

For **keeping track of their account balance**, responses followed a similar pattern. In Public schools, "very important" dominated (n = 158), followed by "quite important" (n = 72). Only minimal responses fell into the "not very important" (n = 17) or "not at all important" (n = 1) categories. Private school teachers reported comparable views, with "quite important" (n = 15) and "very important" (n = 10) as the most common ratings.

Planning spending with consideration of their current financial situation was also seen as an important skill. Most Public school teachers rated it "very important" (n = 125) or "quite important" (n = 86), though some selected

“not very important” (n = 34). Private school responses were more evenly spread, with “quite important” (n = 10) and “very important” (n = 5) most common, but relatively higher proportions rating it “not very important” (n = 12).

The ability to **explain the choices they make when spending their money** was considered “very important” by many Public school teachers (n = 109) and “quite important” by others (n = 102). Smaller numbers rated it “not very important” (n = 34) or “not at all important” (n = 3). Private schools also leaned towards higher importance, with “quite important” (n = 12) and “very important” (n = 6) as leading responses.

For **managing their money**, Public schools again showed a strong emphasis on “very important” (n = 152) and “quite important” (n = 71). Private schools followed the same pattern, although with smaller counts, led by “quite important” (n = 16) and “very important” (n = 6).

Lastly, **checking that they were given the right change when buying something** was highly rated in Public schools, with “very important” (n = 163) and “quite important” (n = 63) being the most common categories. Private school teachers showed a similar emphasis, with “very important” (n = 9) and “quite important” (n = 10) leading.

See Table B9 in Appendix B for a more detailed breakdown.

Financial Habits and Longer Term Impact

Teachers generally observed that Bankee was improving financial habits and decision-making. However, the perception of only “small changes” among many respondents indicates that effects may be incremental and require sustained reinforcement over time.

For **habit and motivation to save money for larger items**, the most frequent teacher observation in Public schools was “most” (n = 108) or “some” (n = 96), with smaller numbers reporting “all” (n = 39) or “none” (n = 3). Private schools followed a similar but smaller-scale pattern, with “some” (n = 14) and “most” (n = 10) being the most common ratings.

In terms of **comparing prices before deciding what to buy**, Public school teachers most often selected “some” (n = 96) and “most” (n = 95), while “all” was also common (n = 50). A small number selected “none” (n = 10). Private school responses also leaned toward “some” (n = 17) and “most” (n = 5).

When rating whether students **ask for advice from parents, teachers, or peers before spending**, Public school teachers tended to say “some” (n = 101) or “most” (n = 85), with 47 choosing “all” and just 9 saying “none.” Private schools again showed smaller totals but similar patterns, with “some” (n = 16) being most frequent.

On whether students **apply what they learn from Bankoz to real money**, most public school teachers answered “some” (n = 128) or “yes” (n = 107), with relatively few saying “no” (n = 15). Private schools had a more even split between “some” (n = 17) and “yes” (n = 10).

Finally, regarding **the extent to which Bankee has changed students’ financial behaviour for the better**, the most common public school teacher responses were “small change” (n = 124) and “large change” (n = 117), with only 10 reporting “no change.” Private schools similarly leaned toward “small change” (n = 12) or “large change” (n = 15), with only 1 selecting “no change.”

See Table B10 in Appendix B for a more detailed breakdown.

Qualitative Accounts

Question 1 | Factors contributing to differences in student understanding of financial literacy: Teachers commented on the financial literacy and behaviour of students through qualitative open-text responses to questions related to the factors that may contribute to differences in student understanding of financial literacy, as well as any general feedback suggestions for the Bankee programme. Factors contributing to differences in student understanding of financial literacy are detailed below. It should be noted that indications of response quantities below are for context and should not be interpreted with any statistical significance.

Family Influence

Family influence was the most frequently cited factor in shaping students' financial literacy, mentioned as a part of their qualitative feedback by 71 out of 294 respondents. Many respondents noted that parental guidance plays a critical role in student understanding of financial literacy. General comments indicate that **parents who actively engage with their children around financial concepts**, such as budgeting, saving, and spending, help build confidence and understanding. In contrast, a lack of parental involvement or awareness can hinder financial development. **Students' exposure to money management often reflects daily household habits** as influenced by family members, including receiving allowances, participating in purchases, or being shielded from financial responsibilities altogether. Further, **socio-economic status** was also an influential factor related to the family and household: respondents pointed out that differences in parents' income, employment, and social class could significantly impact children's understanding and exposure to financial literacy.

Environmental and Social Context

The broader environment, including **home, school, and peer groups**, was cited by 43 respondents of 294 as a meaningful influence. Household dynamics, such as whether financial discussions happen at home or if families model financial responsibility, were often mentioned. In addition to the home environment, **peers also shape financial attitudes** through conversations and shared behaviours. At school, teachers and the institutional environment reinforce financial concepts. Some respondents noted that consistent messaging across school and home, such as the use of Bankee both in and outside the classroom, enhanced uptake.

Individual Characteristics

Individual traits and developmental factors were identified by 47 participants as contributing to differences in financial understanding. **Age and maturity** were frequently mentioned, with younger students (especially in the first and second grade) noted as having less capacity to grasp abstract financial ideas. Cognitive differences, personal interest, and critical thinking skills also played a role. Some students lacked interest or found financial literacy concepts difficult to understand due to lower math skills or abstract reasoning. Meanwhile, students who were encouraged to take responsibility for their finances, such as saving from allowances, tended to show more financial awareness and independence, thus building on the role of family and environment as influential factors in student understanding of financial literacy concepts.

Educational Exposure and Practice

Educational settings and opportunities for practice were identified by 67 of 294 respondents as contributors to financial literacy development. Respondents highlighted the importance of **formal instruction through workshops, classroom activities, and curriculum integration**. Teachers were also indicated as factors who play a pivotal role through discussion, encouragement, and regular reinforcement inside and outside the classroom. Experiential learning, such as allowing students to shop, manage budgets, or work in school shops, was also seen as effective in reinforcing financial concepts. Regular, structured exposure to financial decision-making in the classroom helped translate abstract ideas into concrete skills.

Access to Financial Tools and Media

Access to digital tools and media was cited by 29 respondents of 294 as a contributing factor, with the Bankee platform emerging as a key influence on students' engagement with financial literacy. Other tools such as **financial apps, videos, and self-education resources** contributed to learning, with some respondents noted a need for more visual content for younger students. While social media and internet resources were mentioned, they appeared less influential compared to school-based tools and structured programmes like Bankee.

Cultural Attitudes and Norms

Cultural values regarding saving and spending were cited by 15 respondents of 294 as influencing financial behaviour. **Family norms** about money, including whether saving is encouraged or whether immediate spending is normalized, can shape students' attitudes toward delayed gratification and financial decision-making. Some comments highlighted cultural variations, noting that differing beliefs and practices across communities could result in differing levels of financial awareness.

Question 2 | Additional feedback on Bankee programme improvements: Teachers also commented on the general experience of the Bankee programme by providing additional feedback on how to improve the programme in the future. It should be noted that indications of response quantities below are for context and should not be interpreted with any statistical significance.

Programme Development and Technical Improvements

A substantial proportion of feedback (51 of 294 respondents) focused on the technical and structural development of the Bankee platform. Participants frequently recommended the creation of a **dedicated mobile application** to facilitate ease of access for both students and educators. Users also suggested simplifying the **login process** to reduce friction during classroom use. Additionally, **functionality enhancements** were a major theme. Teachers expressed a desire for more efficient transaction systems, better visual feedback during purchases, and the ability for multiple students to complete transactions simultaneously. Suggestions for teacher-focused improvements included a comprehensive **portal interface** allowing for batch awarding or deduction of Bankoz, the ability to assign reasons for transactions, and enhanced monitoring tools to track student engagement. A critical component of this feedback highlighted the need for a stronger **real-world connection**. Respondents proposed integrating **physical currency** or realistic financial tools—such as **debit or prepaid cards**, ATM-style machines, and electronic payment systems to better simulate real financial experiences. The desire to convert **Bankoz to real money** or tie it to real spending opportunities was viewed as a way to enhance engagement and understanding. Other suggestions included continuing the programme into summer holidays, introducing donation and peer lending features, collaborating with external vendors and retailers, and offering more **flexible salary or payment systems** to better reflect real-world financial dynamics.

Rewards and Motivation

A total of 47 of 294 respondents referenced ways to enhance the reward and motivation system within Bankee. Many respondents recommended increasing both the **variety and perceived value** of available rewards, including offering **higher-value items, larger gifts, or experiential rewards** such as field trips or visits from external partners like NBK. A notable concern was the **age-appropriateness of rewards**, particularly for older primary students. Several responses indicated that rewards targeted at grades four and five were insufficiently engaging or too juvenile. As such, age-specific tailoring of rewards was suggested to maintain motivation across year levels. Enhancements to the **fine, bonus, and salary structure** were also recommended. Some respondents suggested increasing penalties for rule violations, diversifying point denominations, and introducing **weekly bonuses or certificates** to celebrate high-achieving or well-behaved students.

Curriculum Integration and Practical Application

Thirty-seven of 294 responses emphasized the importance of more structured **curriculum integration**. Teachers advocated for embedding financial literacy education into the formal curriculum, supported by a **practical and applied guide** to precede or accompany Bankee implementation. Respondents proposed using **real-life scenarios**, such as budget simulations, money management activities, and real store partnerships, to strengthen the link between programme activities and everyday experiences. Short, daily reinforcement and activating the programme across classroom and recess time were cited as beneficial. Suggestions also included **introductory workshops and awareness seminars**, the development of **educational content** (e.g., definitions, case studies, and bank account training), and producing **study materials** to complement in-class learning. Some respondents advocated for enhancing the digital platform with **advice and guidance content**, reinforcing financial concepts outside regular sessions.

Inclusivity, Parental Engagement, and Community Involvement

Thirty-one responses underscored the importance of enhancing **parental and community engagement**. Many respondents suggested holding **parent-focused workshops or information sessions** to encourage alignment between home and school financial practices. A commonly suggested feature was a parent portal through which families could monitor and support their child's financial behaviour.

Broader **community involvement** was also emphasized. Participants proposed organizing **bank tours**, **increasing visibility of Bankee in public spaces**, and intensifying **social media campaigns** to raise awareness and promote programme adoption. For educators, participants requested awareness sessions, greater **involvement in programme development**, and potential **incentives** to sustain teacher engagement. Finally, some participants advocated for expanding Bankee to **middle and high school students**, suggesting that financial literacy education should be a continuous and age-adapted process.

Gamification and Classroom Integration

Twenty-five responses focused on the enhancement of **gamification features**. Participants expressed a strong interest in **adding more games**, including competitions, puzzles, and classroom-based simulations, to reinforce learning through play. Respondents recommended increasing the quantity and diversity of games and **adapting them to suit older students**, particularly in grades four and five. Improving the **Bankee store experience by offering a wider range of toys and interactive rewards** was a recurring theme, along with calls for age-appropriate merchandise that would incentivize saving and participation.

Challenges and Barriers to Implementation

Feedback from 19 responses highlighted structural and practical **barriers to effective programme delivery**. Among these were **time constraints** within the classroom and the **complexity of points management** on the existing platform. Several teachers indicated that the system was **too time-consuming** and recommended a **dedicated app** to streamline functionality for faster use. Additionally, some students were reportedly confused by the programme's mechanics, suggesting a need for **greater clarity and accessibility** in the student-facing elements.

3.1.2 Classroom Behaviour (Teachers only)

Descriptive Statistics

Demographics and School Context

Teachers in the sample included 256 from public schools and 28 from private schools. There was a somewhat even split between boys' and girls' schools for public schools, while all private school teachers were from mixed-gender settings. The teachers sampled from Arabic speaking (public) schools had strong representation across all primary grades, with subject teaching concentrated in Islamic Studies, Arabic, and English. As for the teachers sampled from the private (English speaking) schools fewer teachers were sampled per grade, with Mathematics, English, and Science the most common subjects taught. For more details, see Table 5 below.

Table 5. Demographics & School Context

	Number	Gender		Type		Grade				
		Boy	Girl	Public	Private	1	2	3	4	5
Public	256	141	115	256	0	63	50	70	78	100
Private	28	0	0	0	28	3	5	8	3	11

	Subject										
	Arabic	English	Math	Science	Music	Islamic Studies	Social Studies	Sports	Computer	Art	Other
Public	49	37	25	35	4	49	22	19	7	10	2
Private	0	25	26	23	1	0	9	1	10	0	2

Kind and Respectful Behaviours

Teachers were asked to assess both the frequency of positive behaviours (kindness and respect) and negative behaviours (verbal and physical aggression), alongside their overall estimates of the proportion of students demonstrating these behaviours.

Teachers in both Public- and Private schools reported high levels of kindness and respect, indicating Bankee's potential contribution to reinforcing prosocial behaviour. However, instances of aggression, while not dominant, remain present, suggesting that while Bankee supports positive classroom culture, it does not fully offset wider behavioural challenges.

Ratings show strong patterns of positive behaviour in both Public- and Private schools. For kindness towards peers, Public school teachers most often selected "often" (n = 108) and "always" (n = 83), while Private school teachers, though fewer in number, reflected the same pattern (n = 9 "often," n = 10 "always"). Kindness towards teachers received even higher endorsements, with Public school teachers overwhelmingly rating students as "always" kind (n = 114), and Private school teachers also leaning towards the highest categories. Respect towards peers followed a similar distribution (Arabic: n = 109 "often," n = 81 "always"), while respect towards teachers and staff received the strongest ratings of all: Public school teachers largely rated this behaviour as "always" (n = 138), mirrored by a majority of Private school teachers (n = 16).

These ratings were consistent with teachers' estimates of the **overall proportion of students exhibiting kind and respectful behaviour**. In Public schools, most teachers judged that between **61–80% of students** (n = 112) or **81–100%** (n = 60) consistently demonstrated kindness and respect, with fewer estimating lower proportions. Private school teachers were similarly positive, with 12 placing their estimate in the 61–80% range and 9 in the 81–100% range.

Teachers also reported on verbal and physical aggression. Among Public schools, verbal aggression was most frequently rated as occurring "sometimes" (n = 96) or "often" (n = 66), with relatively few indicating "always" (n = 7). Private schools reported similar though smaller distributions, with most responses falling into "sometimes" (n = 13) or "often" (n = 10). Physical aggression followed the same pattern, with Public school teachers most frequently selecting "often" (n = 95) or "sometimes" (n = 66), while 33 reported "always." Private school teachers rated lower, with most in "sometimes" (n = 9) or "often" (n = 13), and only 4 selecting "always."

When asked what **proportion of students they believed exhibit unkind or disrespectful behaviour**, teachers provided estimates that mirrored these frequency ratings. In Public schools, most estimates were clustered in the **61–80% range (n = 95)**, with 33 placing their estimate at 81–100%. Private schools reflected the same distribution on a smaller scale. This suggests that while negative behaviours are present, they are not consistently observed as dominant or widespread in the same way as positive behaviours.

See Table B11 in Appendix B for a more detailed breakdown.

Following Rules at School

Teachers were asked to assess both positive behaviours related to rule-following and classroom engagement, and negative behaviours such as unruliness, cheating, and property damage. They were also asked to estimate the overall proportion of students who follow or fail to follow school rules.

While most teachers estimated that 60–80% of students follow school rules consistently, reports of unruly behaviour, cheating, and property damage were still observed in about a quarter to a third of classrooms. This suggests that Bankee encourages compliance overall but does not eliminate disruptive behaviours. Cheating in particular may reflect wider pressures around academic performance, pointing to an opportunity for Bankee to integrate elements of ethical decision-making.

Engagement in classwork was rated very positively by teachers in Public schools, with most selecting "often" (n = 114) or "always" (n = 110). Private schools showed a similar though smaller distribution, with most teachers rating "often" (n = 15) or "always" (n = 8). Similarly, following rules and instructions within the classroom received consistently high ratings, with Public school teachers largely choosing "always" (n = 120) and "often" (n = 95).

Private schools reflected this trend, with most selecting “often” (n = 11) or “always” (n = 8). Following rules and instructions outside the classroom showed slightly more variation but remained positive overall: Public school teachers clustered in “often” (n = 114) and “always” (n = 62), while Private school teachers were more evenly spread, with responses across “sometimes” (n = 11), “often” (n = 8), and “always” (n = 6).

When asked what **proportion of students they believe follow rules at school**, teachers’ estimates strongly reinforced these frequency ratings. In Public schools, most teachers reported that **61–80% of students (n = 103)** or **81–100% (n = 74)** follow school rules, with smaller proportions estimating lower percentages. Private schools were slightly more varied, but still positive, with 11 teachers estimating 61–80% and 10 estimating 81–100% of students follow rules.

Teachers also rated the frequency of behaviours that reflect rule-breaking. Reports of unruly behaviour in Public schools were spread across “sometimes” (n = 92) and “often” (n = 98), with 19 indicating “always.” Private school teachers tended to select lower categories, with most responses in “sometimes” (n = 13) and “often” (n = 8). Cheating was also reported, with Public school teachers most often selecting “often” (n = 117), while Private school teachers were distributed across “sometimes” (n = 9), “often” (n = 12), and “always” (n = 7). Damage to school property was observed less frequently but still noted, with Public school teachers mainly selecting “often” (n = 109) and “sometimes” (n = 72), while Private school teachers were spread more evenly across “sometimes” (n = 9), “often” (n = 9), and “always” (n = 8).

When asked what **proportion of students do not follow rules**, teachers’ estimates showed that noncompliance, while present, is not the norm. In Public schools, most teachers placed their estimates in the lower bands: **0–20% (n = 87)** and **21–40% (n = 82)**, with only 12 reporting that 81–100% of students do not follow rules. Private schools echoed this distribution, with most estimates between 0–40% (n = 25 combined), and only a very small number suggesting higher levels of noncompliance.

See Table B12 in Appendix B for a more detailed breakdown.

Readiness to Learn

Teachers assessed several indicators of students’ readiness to learn, including their ability to focus, self-regulate, set academic goals, and maintain a clean and organised environment. They also provided estimates of the proportion of students who consistently exhibit readiness to learn, alongside ratings of distracting and disruptive behaviours.

Classroom focus was rated highly among students. In Public schools, most teachers reported that students “often” (n = 130) or “always” (n = 81) focused in class, while Private schools reported similar though smaller distributions (“often” n = 16, “always” n = 4). Self-regulation followed a comparable pattern: Public school teachers clustered around “often” (n = 122) and “always” (n = 75), while Private school teachers again showed most responses in “sometimes” (n = 14) and “often” (n = 10).

Goal-setting was also a positive area, with Public school teachers mostly selecting “often” (n = 82) and “always” (n = 89), while Private school teachers leaned towards “sometimes” (n = 11) and “often” (n = 10). Maintaining a clean and organised environment received high endorsement in Public schools (“often” n = 102, “always” n = 68), though Private schools reflected a more balanced distribution across “sometimes” (n = 8), “often” (n = 11), and “always” (n = 5).

Teachers’ estimates of the **proportion of students who show readiness to learn** reinforced these findings. In Public schools, most teachers reported that **61–80% (n = 110)** or **81–100% (n = 89)** of students demonstrate readiness. Very few estimated below 40%. Private schools showed similar positivity, with 9 reporting 61–80% and 8 reporting 81–100%.

In contrast, behaviours that hinder learning—such as distraction and disruption—were more frequently rated as occurring “sometimes” or “often” but rarely “always.” For distraction, Public school teachers mostly chose “sometimes” (n = 108) and “often” (n = 83), with smaller numbers at the extremes. Private school teachers were more evenly distributed across “rarely” (n = 5), “sometimes” (n = 18), and “often” (n = 5). Similarly, disruption was

most often rated as “sometimes” (n = 97) and “often” (n = 85) by Public school teachers, while Private school teachers were clustered in “sometimes” (n = 16) and “often” (n = 5).

When asked to estimate the **proportion of students who exhibit disruptive work habits**, teachers’ responses suggested that disruption is present but not dominant. In Public schools, most estimated **0–20% (n = 94)** or **21–40% (n = 80)** of students as being disruptive, with only 5 estimating 81–100%. In Private schools, most estimates also fell below 40% (n = 20 combined), with no teachers reporting that a majority of students were highly disruptive.

See Table B13 in Appendix B for a more detailed breakdown.

Engagement

Teachers were asked to rate students on three dimensions of classroom engagement - participating in class discussions, engaging in activities without prompting, and collaborating with peers in group work - as well as to estimate the overall proportion of students demonstrating high engagement.

Participation in class discussions was highly endorsed. In Public schools, many teachers rated students as “often” (n = 89) or “always” (n = 132) participating, with only small numbers reporting lower frequencies. Private schools showed a similar though smaller distribution, with most responses clustered at “often” (n = 13) and “always” (n = 12).

When asked about students’ ability to engage in class activities without prompting, results were also very positive. Public school teachers largely selected “often” (n = 80) and “always” (n = 141), with very few choosing “rarely” or “never.” Private schools reflected a similar though more modest trend, with the highest responses in “sometimes” (n = 10), “often” (n = 10), and “always” (n = 8).

Collaboration in group work was reported at particularly high levels. Public school teachers mostly rated students as “often” (n = 101) or “always” (n = 122), while Private school teachers also leaned towards higher ratings, with most selecting “often” (n = 12) or “always” (n = 10).

When asked to estimate the **proportion of students demonstrating high engagement at school**, the responses aligned strongly with the item-level findings. In Public schools, most teachers estimated that **61–80% (n = 101)** or **81–100% (n = 88)** of students demonstrate high engagement, with very few estimates below 40%. Private schools showed similar results: 13 teachers estimated 61–80% and 10 teachers estimated 81–100%.

See Table B14 in Appendix B for a more detailed breakdown.

Collaboration

Teachers were asked to evaluate students’ collaborative behaviours across four domains: working well with others, supporting peers academically, encouraging classmates, and resolving conflicts calmly. In addition, they were asked to estimate the overall proportion of students who foster teamwork and collaboration at school.

Collaboration in group settings was very strong, with the majority of Public school teachers rating students as “often” (n = 103) or “always” (n = 122) working well with others. Only a handful of teachers reported “rarely” (n = 3) or “never” (n = 1). Private schools followed a similar trend, with ratings concentrated at “sometimes” (n = 7), “often” (n = 11), and “always” (n = 10).

Supportive academic behaviour was also rated highly. In Public schools, most teachers reported that students “often” (n = 120) or “always” (n = 80) supported their peers academically, with fewer responses in the “sometimes” category (n = 45). Private school teachers also endorsed supportive behaviours, though at slightly lower levels, with most selecting “sometimes” (n = 9), “often” (n = 11), and “always” (n = 8).

Encouragement of peers was similarly widespread. Public school teachers rated students as “often” (n = 92) or

“always” (n = 109) encouraging classmates, while Private school teachers also gave higher ratings, particularly “sometimes” (n = 9), “often” (n = 9), and “always” (n = 8).

Conflict resolution, while still positive, showed a slightly wider spread of responses. Among Public school teachers, students were most often rated as “sometimes” (n = 73), “often” (n = 82), or “always” (n = 77), with some lower ratings of “rarely” (n = 20). In Private schools, teachers reported more variation, with ratings distributed across “sometimes” (n = 13), “often” (n = 5), and “always” (n = 6).

When asked to estimate the **proportion of students fostering teamwork and collaboration at school**, responses reinforced the item-level findings. In Public schools, most teachers estimated that **61–80% (n = 101)** or **81–100% (n = 88)** of students demonstrate collaborative behaviours, with fewer estimates below 40%. Private schools showed a similar trend, with most teachers estimating **61–80% (n = 13)** or **81–100% (n = 10)** of students as strong collaborators.

See Table B15 in Appendix B for a more detailed breakdown.

Qualitative Accounts

Question 1 | Challenges and use of Bankee in managing students with learning differences: Teachers also commented on managing students with learning differences and the role of Bankee in classroom management. Factors contributing to challenges and solutions related to classroom behaviour are detailed below. It should be noted that indications of response quantities below are for context and should not be interpreted with any statistical significance.

Behavioural Management through Bankee

Behavioural regulation emerged as the most prominent theme in feedback on the use of Bankee for students with learning differences, mentioned by 55 out of 284 respondents. Educators frequently cited the programme’s ability to **discourage antisocial behaviours**, including aggression, disruption, and bullying, through a structured system of rewards (Bankoz) and fines. For example, respondents reported using Bankee to decrease classroom violence, reduce student aggression, and promote rule-following through timely fines and incentives. In addition to its disciplinary function, Bankee was seen as a **tool to encourage prosocial behaviour and a sense of responsibility** among students, including those with attention deficit or hyperactivity challenges. Examples included rewarding students for completing assignments, cooperating with peers, and taking care of school property. Teachers also noted the programme’s **potential to foster academic improvement for students who struggle with traditional performance metrics**, using Bankoz to incentivize completion of homework and classwork. Though not always explicitly referenced, these strategies were applied to students with learning differences as part of broader classroom management approaches.

Addressing Student Diversity and Inclusion

Feedback from 23 respondents highlighted the challenges of **managing classrooms with diverse learning abilities**, noting that Bankee served as a **unifying tool** that helped create equitable motivation systems for students with varied academic and behavioural profiles. One respondent described how reward-based encouragement helped “unify the classroom” despite differences in ability levels, while others used Bankee to support students with educational challenges. Some participants acknowledged limitations, particularly in **adapting the programme for younger students or those with language barriers and limited home support**. Differentiation in programme delivery—particularly around the speed of task completion or comprehension—was noted as a challenge that Bankee could partially mitigate, though further adaptation may be required to ensure full inclusivity.

Family and Home Environment Influences

Parental involvement was mentioned by 9 respondents as a key factor influencing the effectiveness of Bankee, **especially for students with learning or behavioural differences**. In cases of high familial engagement, the programme was seen as more successful in facilitating behaviour modification and academic planning. However, a lack of family cooperation was cited as a barrier to programme effectiveness. One respondent noted that some students, particularly those whose parents "provided almost everything," were less motivated by Bankee rewards, suggesting the need for alternative forms of engagement such as field trips or community-based incentives. These findings reinforce the recommendation from prior data that home reinforcement and programme alignment with real-world relevance can support with the broader success of Bankee, especially among students with differing needs.

Teachers repeatedly cited family financial practices as the strongest driver of differences in students' financial literacy. This highlights that Bankee's success may be amplified—or constrained—by the home environment. It reinforces the case for developing parental engagement strategies (e.g., parent workshops, portals, or resources) to ensure consistency between school and home.

General Use of Bankee with Students with Learning Differences

A significant proportion of respondents (114 out of 284) commented on their broader use of the Bankee programme to reward behaviour, encourage learning, and manage the classroom environment—with many of these strategies benefitting students with learning differences. Bankee was **used to promote motivation, participation, cleanliness, timeliness, and completion of homework**. Specific examples included using the programme to encourage students to **help peers, engage in class activities, or demonstrate kindness**. In relation to behaviour regulation, teachers noted using Bankee to **manage classroom dynamics and reduce distractions**. Several emphasized its role in promoting financial literacy in ways that aligned with both classroom learning and student behaviour objectives.

Programme Effectiveness and Limitations

Although most feedback described positive outcomes, a subset of respondents commented on variable or limited effectiveness of the Bankee programme for some students, particularly those with learning or behavioural challenges. Some teachers reported reduced interest over time, especially among students from more affluent backgrounds who had access to similar rewards outside of school. One respondent noted that the bonus system was difficult to implement effectively for students with learning differences, and that understanding of Bankee concepts could act as a barrier to engagement.

Question 2 | Overall changes in behaviour from Bankee programme: Teachers responded to the effect of Bankee on students' behavioural change. Factors detailing how Bankee has changed students' behaviour are detailed below. It should be noted that indications of response quantities below are for context and should not be interpreted with any statistical significance.

Positive Behavioural Change and Discipline

A majority of respondents (103) reported noticeable improvements in **student behaviour** since using Bankee. These included increased **rule-following**, stronger **class participation**, more **focused work ethic**, and a generally **quieter, less disruptive classroom**. Some teachers observed greater **self-control** and reduced impulsivity. The programme was said to promote a "work hard, get rewarded" ethic and improved **attendance and commitment**. **Significant behaviour changes** were noted by 34 respondents, while few **cited moderate improvements**. Several viewed Bankee as a useful **disciplinary tool**, encouraging cooperation through the fear of losing Bankoz or receiving fines.

Motivation and Reinforcement

Some teachers reported that students were **highly motivated** by the opportunity to **earn Bankoz**, driving better behaviour, engagement, and attendance. Bankoz rewards encouraged **rule-following, active participation, and collaborative work**, while the risk of losing Bankoz deterred misconduct. Teachers also noted that students responded positively to the programme's **gamified structure**, especially where rewards included **gifts or games**.

Financial Literacy and Decision-Making

Some teachers observed growth in students' **financial awareness**, including concepts like **saving, budgeting, and the value of money**. Some reported visible changes in **spending habits**, with students thinking more critically before purchases. A few respondents noted that Bankee helped instil values like **charity and sharing**.

Social and Emotional Growth

Respondents described **improvements in classroom calmness**, especially during transitions and lessons. Students also showed greater **cooperation and teamwork**, as well as more **respectful and enthusiastic engagement**. In some cases, Bankee was seen to foster **positive peer interactions** through shared goals.

Competition and Engagement

Bankee's **reward-based structure** created a sense of **friendly competition and drove increased engagement** in class. Teachers reported students were more attentive and interactive, with some noting better concentration and participation.

Variable or Limited Impact

While most respondents had positive feedback, a minority of teachers reported **minimal or short-term effects**, particularly for younger students or as the year progressed. Some said students **lost interest** in the system over time, reducing its behavioural impact.

3.1.3 Classroom Behaviour (Principals only)

Descriptive Statistics

Demographics & School Context

All 10 Public school principals were from Arabic-medium schools, evenly split between boys' (50%) and girls' (50%) schools. The 2 Private school principals were from English-medium schools, both of which were mixed-gender ("Both"). See Table 6 below for a breakdown.

Table 6. School Language, Gender, and Type

Category	Arabic Frequency	English Frequency
Arabic	10	0
English	0	2
Boy	5	0
Girl	5	0
Both	0	2
Public	10	0
Private	0	2

In Public schools, daily visits (40%) and weekly visits (30%) were most common, with smaller shares visiting once a month (20%) or more than once a week (10%). Among Private schools, one principal visited once a week and the other once every two weeks. See Table 7 below for a breakdown.

Table 7. Visit Frequency

Category	Arabic Freq	Arabic %	English Freq	English %
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Once a month	2	20.0	0	0.0
Once a week	3	30.0	1	50.0
More than once a week	1	10.0	0	0.0
Daily	4	40.0	0	0.0
One every two weeks	0	0.0	1	50.0

Kind and Respectful Behaviours

School principals were asked to evaluate students' behaviour in terms of kindness towards peers and teachers, respect towards peers and staff, and instances of verbal and physical aggression. In addition, they were asked to estimate the proportion of students who exhibit kind/respectful behaviours, as well as those showing unkind/disrespectful behaviours.

Principals in both contexts rated kindness and respect very highly, with principals from private schools particularly positive. Public school principals also noted some verbal and physical aggression, though less frequently than teachers, suggesting differences in visibility at the leadership level.

Kindness towards peers was rated positively across both groups of principals. In Public schools, most principals rated students as "often" (n = 6) or "always" (n = 3) kind to their peers, with one principal selecting "sometimes" (n = 1). In Private schools, the pattern was slightly more uniform, with responses concentrated in "often" (n = 1) and "always" (n = 1).

Kindness towards teachers followed a similar pattern. Among Public schools, principals primarily rated students as "often" (n = 4) or "always" (n = 6), with no responses in the lower frequency categories. In Private schools, the responses were again highly positive, with ratings divided between "often" (n = 1) and "always" (n = 1).

Respect towards peers was also strong. In Public schools, most principals selected "often" (n = 5) or "always" (n = 5), with three principals indicating "sometimes" (n = 3). Private schools showed more consistent positivity, with both principals rating respect as "always" (n = 2).

Respect towards teachers and staff was rated slightly lower in Public schools, though still positive overall. Principals most often rated students as "often" (n = 5) or "always" (n = 4), with one lower rating of "sometimes" (n = 1). Private schools were unanimous in their highest evaluations, with both principals reporting "always" (n = 2).

Estimates of the overall proportion of students exhibiting kind and respectful behaviours reinforced these ratings. Public school principals' estimates ranged across the higher bands, with one reporting 21–40% (n = 1), one reporting 41–60% (n = 1), four reporting 61–80% (n = 4), and four estimating 81–100% (n = 4). Private school principals were consistent, with both estimating that 81–100% (n = 2) of students demonstrate kind and respectful behaviours.

When considering unkind and disrespectful behaviours, Public school principals reported moderate levels. Verbal aggression was described most frequently as "sometimes" (n = 4) or "often" (n = 3), with smaller numbers selecting "rarely" (n = 2) or "never" (n = 1). Physical aggression was similarly distributed, with principals rating it as "sometimes" (n = 5), "often" (n = 1), or "always" (n = 2), alongside fewer reports of "rarely" (n = 1) or "never" (n = 1). Private schools, however, reported far less unkind behaviour. Verbal aggression was limited to "sometimes" (n = 1) and "often" (n = 1), while physical aggression was rated "sometimes" (n = 2) only.

Proportion estimates of unkind and disrespectful behaviours mirrored these item-level findings. In Public schools, principals most often estimated that 61–80% (n = 4) or 81–100% (n = 4) of students do not exhibit unkind behaviours, though two principals gave lower estimates of 21–40% (n = 1) and 41–60% (n = 1). By contrast, Private school principals were unanimous, with both reporting that 81–100% (n = 2) of students do not exhibit unkind behaviours.

See Table B16 in Appendix B for a more detailed breakdown.

Following Rules at School

Principals were asked to evaluate students' adherence to rules in and outside the classroom, alongside their perceptions of unruly behaviour, cheating, property damage, and parental involvement. They were also asked to estimate proportions of students who both follow and do not follow rules at school.

Following rules in the classroom was rated very highly across both school types. Among Public schools, principals unanimously rated students as either "often" (n = 7) or "always" (n = 3) compliant with classroom rules and instructions. Private schools echoed this positive picture, with both principals rating compliance at the highest level, "always" (n = 2).

Adherence to rules outside the classroom showed a slightly more mixed distribution among Public school principals, though still strongly positive. The majority selected "often" (n = 8), alongside two who chose "sometimes" (n = 2). By contrast, Private schools reported uniformly high ratings, with both principals selecting "always" (n = 2).

When estimating the overall proportion of students who follow rules at school, Public school principals' responses were concentrated in the upper bands: five estimated 61–80% (n = 5) and two estimated 81–100% (n = 2), with smaller numbers selecting 21–40% (n = 1) and 41–60% (n = 2). Private school principals were even more consistent, with both estimating that 81–100% (n = 2) of their students follow school rules.

Unruly behaviour was reported more frequently in Public schools compared to Private schools. Principals from Public schools most often rated such behaviour as "sometimes" (n = 3) or "often" (n = 5), with one reporting "rarely" (n = 1) and one "always" (n = 1). Private school principals, on the other hand, reported only isolated cases, rating unruliness as "sometimes" (n = 1) and "often" (n = 1).

Cheating behaviours showed similar contrasts. Public school principals gave higher ratings, with responses distributed across "sometimes" (n = 3), "often" (n = 4), and "always" (n = 3). In Private schools, ratings were more moderate, with principals describing cheating as "sometimes" (n = 1) and "often" (n = 1).

Reports of damage to school property followed the same trend. Among Public school principals, responses spanned "rarely" (n = 2), "sometimes" (n = 3), "often" (n = 3), and "always" (n = 2). In Private schools, the reported prevalence was lower, with one principal rating it as "often" (n = 1) and the other as "always" (n = 1).

Parental involvement, however, was described more positively by Public school principals. Most indicated that parents were "often" (n = 4) or "always" (n = 2) involved, with one principal reporting "sometimes" (n = 1). In Private schools, both principals rated involvement consistently at "always" (n = 2).

Finally, principals were asked to estimate the proportion of students who do not follow school rules. Among Public schools, responses were weighted towards lower proportions, with most estimating 21–40% (n = 6), alongside single estimates at 0–20% (n = 2), 41–60% (n = 1), and 61–80% (n = 1). By contrast, Private school principals were unanimous in estimating that only 0–20% (n = 2) of students fail to follow rules.

See Table B17 in Appendix B for a more detailed breakdown.

Readiness to Learn

Principals assessed student behaviours related to punctuality, tidiness, readiness to learn, distraction, and disruption. They were also asked to estimate the proportions of students showing readiness and engaging in disruptive work habits.

Arriving to school on time was rated positively by both groups of principals. In Public schools, most principals selected "often" (n = 6) or "always" (n = 3), with one reporting "sometimes" (n = 1). In Private schools, punctuality was rated even more consistently at the high end, with both principals selecting "often" (n = 1) or "always" (n = 1).

Maintaining a clean and organised environment was also endorsed positively, though with slightly more variation. Public school principals distributed their ratings across "sometimes" (n = 1), "often" (n = 2), and "always" (n = 4).

Private school principals gave somewhat lower scores, with one rating this as “often” (n = 1) and the other as “always” (n = 1).

Readiness to learn in general was reported as very strong, particularly in Public schools. Principals overwhelmingly rated students as “often” (n = 7) or “always” (n = 2), with only a single “sometimes” response (n = 1). Private school principals similarly rated students highly, both selecting “always” (n = 2).

When asked to estimate the overall proportion of students who demonstrate readiness to learn, Public school principals gave optimistic estimates, with most reporting 61–80% (n = 4) or 81–100% (n = 5) of students, and only one reporting a lower band of 21–40% (n = 1). Private school principals reported even stronger perceptions, with both estimating 81–100% (n = 2) of students as consistently ready to learn.

In contrast, distraction in the classroom was seen as more prevalent in Public schools. The majority of principals reported students being distracted “sometimes” (n = 8) or “often” (n = 2), while none rated it as “never” or “always.” Private school principals reported far fewer cases, with only one rating it “sometimes” (n = 1) and another as “often” (n = 1).

Disruptive behaviours followed a similar pattern. Public school principals concentrated their responses at “sometimes” (n = 9) and “often” (n = 1), suggesting low but consistent levels of disruption. Private school principals also reported isolated cases, each rating disruptive behaviour as “sometimes” (n = 1) or “often” (n = 1).

Finally, when estimating the proportion of students who exhibit disruptive work habits, Public school principals were divided between the lowest bands, with five estimating 0–20% (n = 5) and another five reporting 21–40% (n = 5). None estimated above 40%. Private school principals gave even lower estimates, with both selecting the 0–20% band (n = 2).

See Table B18 in Appendix B for a more detailed breakdown.

Engagement

Principals were also asked to assess student engagement, including participation in class discussions, independent involvement in class activities, and collaboration with peers in group work. In addition, they were asked to estimate the proportion of students who demonstrate high engagement overall.

Participation in class discussions was rated highly by Public school principals. The majority reported that students “often” (n = 7) or “always” (n = 2) took part in class discussions, with only a single principal selecting “rarely” (n = 1). Private school principals were even more positive, both reporting that students “always” (n = 2) engaged actively in class discussions.

Engagement in class activities without prompting showed similarly strong results among Public schools. Most principals indicated that students participated “often” (n = 3) or “always” (n = 6), with only one rating this as “rarely” (n = 1). Private school principals also rated students very positively, both reporting either “often” (n = 1) or “always” (n = 1).

Collaboration with peers in group work was also described as common. Among Public school principals, ratings were concentrated at “often” (n = 5) and “always” (n = 2), with one principal reporting “sometimes” (n = 1). In Private schools, both principals gave the highest possible rating, indicating that students “always” (n = 2) collaborate effectively with peers in group settings.

When asked to estimate the overall proportion of students who demonstrate high engagement at school, Public school principals provided highly positive assessments. Most placed their estimates in the 61–80% range (n = 6) or the 81–100% range (n = 4), suggesting that nearly all students are considered engaged. Private school principals also reported strong engagement, with one estimating that 61–80% of students are highly engaged (n = 1) and the other estimating 81–100% (n = 1).

See Table B19 in Appendix B for a more detailed breakdown.

Collaboration

Principals were asked to evaluate students' collaborative behaviours across four domains: working well with others, supporting peers academically, encouraging classmates, and resolving conflicts calmly. They were also asked to estimate the overall proportion of students who foster teamwork and collaboration at school.

Collaboration in group settings was rated very positively. Among Public school principals, responses were evenly divided between "often" (n = 5) and "always" (n = 5), suggesting that students are consistently perceived as working well with others. Private school principals also provided positive assessments, both indicating that students "often" (n = 1) or "always" (n = 1) collaborate effectively with peers.

Supportive academic behaviour was also strongly endorsed. In Public schools, most principals reported that students "often" (n = 2) or "always" (n = 4) supported peers academically, with no responses in the lower categories. Private school principals provided similar though slightly more modest ratings, both selecting either "often" (n = 1) or "always" (n = 1).

Encouragement of classmates was consistently high across both school types. Public school principals concentrated their ratings at "often" (n = 5) and "always" (n = 4), with one reporting "sometimes" (n = 1). Private school principals again provided uniformly positive evaluations, both rating students as "always" (n = 2) encouraging their peers.

Conflict resolution behaviours were also widely endorsed, though with slightly more variation. Public school principals reported that students "often" (n = 4) or "always" (n = 4) resolved conflicts constructively and calmly, with two additional responses at "rarely" (n = 2). Private school principals, by contrast, were more unanimous, with both rating students as "always" (n = 2) managing conflicts positively.

When asked to estimate the proportion of students who foster teamwork and collaboration at school, Public school principals gave highly favourable ratings. Most placed their estimates at 61–80% (n = 6) or 81–100% (n = 4), suggesting strong collaborative cultures. Private school principals also confirmed this view, with one estimating 61–80% (n = 1) and the other 81–100% (n = 1).

See Table B20 in Appendix B for a more detailed breakdown.

Qualitative Accounts

Challenges and use of Bankee in managing students with learning differences

Principals responded to classroom behaviour questions regarding managing students with learning differences and the role of Bankee in classroom management. Factors contributing to challenges and solutions related to classroom behaviour are detailed below.

Principal respondents shared that they face challenges such as managing swearing, discipline, absenteeism, and differences in learning abilities among students. Many reported using the Bankee programme as a tool for classroom behaviour management, both inside and outside the classroom. Principals noted that Bankee rewards helped reduce negative behaviours, while also encouraging participation, commitment to school hours, and collaborative learning. The system was described as effective in motivating students, promoting positive behaviour change, and even enabling principals to engage with students by rewarding good conduct. Several principals noted that Bankee helped to unify classrooms by reinforcing positive behaviour and supporting behavioural modification for some students with learning differences.

Overall changes in behaviour from Bankee programme

Principals responded to the effect of Bankee on students' behavioural change. Factors detailing how Bankee has changed students' behaviour are detailed below.

Principals reported a generally positive change in student behaviour, with noticeable improvements in discipline, cooperation, and classroom morale. Bankee was said to increase care, sharing, and collaborative work, while also encouraging rule-following, attendance, and a more respectful classroom environment. Some mentioned a reduction in bullying and violence, particularly among fourth and fifth graders, contributing to a safer and more respectful school culture. Students reportedly became more committed to hygiene, property care, and following school rules. The reward system helped boost motivation, with students actively seeking incentives, enjoying the programme, and responding positively to its competitive and encouraging structure.

3.2 Psychometric Results

This section details the results of the psychometric testing conducted on the Bankee pilot surveys for teachers, focusing on three instruments:

- The Teacher Financial Literacy and Behaviour Survey
- The Teacher Classroom Behaviour Survey
- The Principal Classroom Behaviour Survey

For the teacher surveys, the validation process followed the same four-stage cycle:

- Stage 1 – Confirmatory Factor Analysis (CFA) was used to test whether the data from the pilot aligned with the original survey design and theoretical domains based on Bankee's Theory of Change.
- Stage 2 – Exploratory Factor Analysis (EFA) was used to investigate how survey questions naturally grouped together in the pilot data, without forcing them into the pre-set theoretical model.
- Stage 3 – Amended CFA tested a revised survey structure based on EFA findings to determine if fit improved.
- Stage 4 – Reliability Analysis assessed the internal consistency of the surveys and their subscales using Cronbach's alpha.

As for the Principal Survey, we only conducted the reliability analysis. Due to the **small sample size** for principals ($n = 12$), it was **not statistically feasible** to run CFA or EFA. The limited number of responses meant that factor analysis would produce unstable estimates that could not be generalised.

These analyses were conducted to ensure that the surveys are both valid (measuring what they are intended to measure) and reliable (producing consistent results over time and across respondents).

We also gathered qualitative feedback to inform survey refinement. Our team began by collating psychometric survey feedback and identifying recurring themes in the open-text responses, including comments on survey length, clarity, and programme-related feedback. Using thematic analysis, we summarised key sentiments about the survey and recorded the proportion of respondents who provided feedback. We also drew on direct quotes that were representative of common views.

This process informed our review of the survey content, particularly when assessing for duplicate items or questions with unclear wording. For each question, we identified core themes and cross-checked them against the survey to ensure coverage, clarity, and relevance. These qualitative insights were instrumental in refining question wording, removing redundancies, and selecting the final set of survey items.

In the text below, we will use the item names that were used in R to refer to the items themselves. A description of what questions these item names belong to can be found in Appendix B.

3.2.1 Financial Literacy (Teachers only)

Qualitative Findings

The overwhelming majority of respondents (**238 out of 293, or 81.2%**) did not provide any feedback on the financial literacy survey experience, suggesting that most found it unremarkable or acceptable enough not to comment. However, among the **55 teachers who did respond**, feedback touched on various areas, including survey clarity, length, improvement suggestions, and delivery format.

Survey Length, Clarity, and Quality: A small subset (9/293 respondents) raised concerns about the **length and clarity of the survey**. Some described it as “boring, distracting and time-consuming” and called for a reduction in the number of questions and more concise phrasing. These comments indicate that a shorter, more focused version could improve engagement. Conversely, 18 teachers offered **positive feedback** on the survey’s structure and design. They found it “smooth and logical” and appreciated its clarity and usefulness.

Content and Design Suggestions: A number of participants (8/293) shared ideas for improving the **content** and structure of the survey. These included calls for more **individualised sampling**, as some teachers felt grouping students within the questionnaire overlooked **important individual differences**. Others proposed adding new questions, such as whether Bankee is effective for all age groups, or how students manage their own spending. There were also suggestions to add a **screening question for teachers** about their own financial literacy levels, to better contextualise their responses and readiness to deliver the programme.

Technical and Delivery Format: Finally, 7 teachers commented on the **technical aspects** of the survey. They recommended making the survey more **accessible online**, with a link that could be opened at any time. Others proposed building a **Bankee app** with notifications and sound effects when Bankoz are added or deducted and expanding access so that **students and parents** could also complete surveys.

Quantitative Findings

Stage 1 – Initial CFA (Original Model)

The Teacher Financial Literacy and Behaviour Survey was initially designed to measure nine separate domains of financial literacy and behaviour; each linked to specific Bankee learning objectives:

Table 8. Financial Literacy and Behaviour Domains

Domain Code	# of items	Domain Name	Example Items (Shortened)
FL	7	Financial Literacy Topics	Students know about budgeting, saving, planning purchases
FT	7	Financial Terminology	Understanding terms like salary, bonus, ATM, account
CM	4	Concepts about Money	Knowing what money is, how it is used
CV	5	Concepts about Value	Differentiating quality vs. quantity, wants vs. needs
FC	6	Financial Concepts	Understanding debit cards, current accounts, online banking
FB	6	Financial Behaviour	Confidence in financial tasks, saving behaviour
FR	5	Financial Responsibility	Saving for goals, donating, making sensible purchases
FI	6	Financial Information	Managing passwords, checking balances, secure choices
FH	3	Financial Habits	Comparing prices, seeking advice before purchases

The CFA tested whether the responses from 293 teachers grouped into these nine domains as expected.

The survey was originally designed to measure two related but distinct constructs:

- Financial Literacy – understanding of financial terms, concepts, and contexts (both within and beyond Bankee’s curriculum).

- Financial Behaviour – attitudes, habits, and decision-making related to money.

Initial CFA results:

When the hypothesised structure was tested statistically, the fit indices indicated poor-to-moderate alignment between the conceptual model and the observed data:

- CFI = 0.838 (acceptable >0.90)
- TLI = 0.825 (acceptable >0.90)
- RMSEA = 0.056 (acceptable <0.08)
- SRMR = 0.064 (acceptable <0.08)

N of data points used = 191 (of 293)

The overall error indices (RMSEA/SRMR) were within typical guidelines, but comparative fit (CFI/TLI) fell below the usual ≥ 0.90 threshold. This pattern indicates the conceptual scaffolding was sensible, yet several subscales were too closely related in how teachers answered to be distinguished cleanly without revision. Modification indices also pointed to local overlaps (e.g., Bonus–Fine, Value–Trade, Classwork–Classroom rules, etc.), consistent with real-world classroom perceptions.

In other words, this means that while the conceptual grouping of items had theoretical merit, the way teachers responded to the questions indicated that some domains did not operate as distinct, separate constructs in practice. In other words, some items we thought would measure different aspects of financial literacy or behaviour were, in reality, being interpreted as closely related by teachers - enough to blur the boundaries between domains. This justified moving to Stage 2 EFA to explore how items naturally grouped.

Stage 2 – EFA (Natural Groupings)

Given the less-than-optimal CFA fit, an EFA was conducted to explore how the survey questions naturally grouped in the data.

We ran an EFA on the full teacher set to identify item clusters (i.e., which items were answered in similar ways). Global EFA diagnostics indicated good factoring for this dataset:

- TLI (factoring reliability) = 0.854
- RMSEA = 0.05 (90% CI 0.045–0.054)
- RMSR $\approx$ 0.04.

The EFA pattern matrix outputting the way items link to subscales indicated that:

- Teachers tended to see core Bankee topics (budgeting, saving, pricing, value) and several basic banking concepts as one practical cluster (large group under Financial Literacy).
- Terminology like bonus, fine, balance formed another area (Financial Topics), whereas “account” behaved more like a general banking concept and aligned with the third set named Financial Concepts.
- “Value of money” (CV) items tended to cluster together (Concepts about Money) but were also close to related literacy items; some elements showed weaker/dual ties (e.g., CV_Pocket near Concepts about Money; CV_Quality closer to core concepts), a sign of overlap that can reduce clarity for a stand-alone subscale.
- Within financial behaviour, most positive habits and responsibilities aligned together (Financial Behaviour), while information-safety items clustered strongly and distinctly (Financial Responsibility). The anxiety item behaved oppositely (negative direction), suggesting it wasn’t pulling analytically in the same direction as the rest of the “positive habits” set.

These findings suggested that merging overlapping domains and removing weaker items could strengthen the survey.

Stage 3 – Amended CFA (Revised Model: data-driven revision)

The revised model was developed by:

- Removing items with consistently weak domain alignment.
- Merging domains with overlapping content (e.g., combining certain Financial Behaviour and Financial Responsibility items).
- Reassigning items to domains where they were most strongly connected according to the pilot data.

This means that, by using the EFA insights, we trimmed weaker/overlapping items and re-grouped where the data clearly pointed to a better home (e.g., FT_Account with banking concepts; removal of FB_Anxious and FR_Free; and removal of the CV block as a separate factor given cross-domain overlap). The amended model produced substantially improved fit:

- CFI = 0.907
- TLI = 0.897
- RMSEA = 0.052 (90% CI 0.045–0.059),
- SRMR = 0.057

Number of data points used = 209 (of 293)

This means that RMSEA/SRMR are solidly within target; CFI/TLI are notably higher and borderline acceptable by common criteria, evidencing a cleaner, more economical structure that better reflects how teachers actually judge students' literacy and behaviour. Some examples of what those changes look like in practical terms:

- Removed/trimmed items that under-performed or conflicted with the direction of the scale (e.g., FB_Anxious, FR_Free, and the separate CV factor).
- Re-assigned items to where they empirically fit best (e.g., FT_Account with FC).
- Kept strong anchors in each area (e.g., FC_Statement, FC_Debit, FC_Saver, FC_Current; FI_Check, FI_Manage; FB_Save, FR_Save), giving each domain a clear conceptual centre.

Stage 4 – Reliability Analysis

Cronbach's alpha was calculated for the total scale and each domain. Values above 0.70 are considered acceptable, above 0.80 are good, and above 0.90 are excellent.

Domain	α
Total scale	0.95
Financial Literacy Topics (FL)	0.79
Financial Terminology (FT)	0.82
Concepts about Money (CM)	0.72
Concepts about Value (CV)	0.82
Financial Concepts (FC)	0.88
Financial Behaviour (FB)	0.79
Financial Responsibility (FR)	0.74
Financial Information (FI)	0.86
Financial Habits (FH)	0.69

(Dropping items did not improve α meaningfully.)

Interpretation & decisions:

- The total scale and most subscales showed good to excellent reliability, supporting continued use with light pruning.
- Items with weaker or contradictory associations (e.g., FB_Anxious) were removed to sharpen the behaviour construct; CV was not retained as a stand-alone factor in the amended model due to overlap with other constructs and inconsistent alignment; its core ideas remain covered by pricing/budgeting items and general financial concepts.
- The amended model thus reduces redundancy, clarifies domains, and keeps coverage of programme-relevant content, ready for pre/post use next cycle.

What we changed based on the results (at a glance)

Trimmed under-performing/contradictory items (e.g., FB_Anxious, FR_Free); did not retain CV as a separate factor; re-assigned FT_Account under banking concepts; confirmed strong anchors in FC and FI; amended CFA showed materially better fit and strong scale reliability.

3.2.2 Classroom Behaviour (Teachers only)

Qualitative Findings

A large majority of respondents (240 out of 284, or 84.5%) did not provide any feedback on the survey, suggesting broad acceptability or neutrality in their experience. Among the 44 who did comment, responses focused on the survey's **length and structure, clarity, and ideas for improvement**, as well as some broader suggestions related to the Bankee programme itself.

Survey Length, Clarity, and Quality: A recurring theme among 11 respondents was that the survey was too **long** or **repetitive** in parts. Teachers suggested that reducing the number of questions and eliminating redundancies could make the survey more efficient and engaging. **Twelve teachers expressed positive feedback**, noting that the survey was “nice and clear” and appreciated that it covered both financial literacy and student behaviour.

Suggestions for Improvement: Nine respondents shared targeted suggestions on **content, delivery format, and survey audience**. Some noted that certain **Arabic terms were unclear**, which may have impacted comprehension. Several participants proposed moving the survey to an **online format with link-accessibility**, with a flexible deadline and direct access for teachers. There was also a call to **combine survey components** into a single questionnaire, and to include **questions about peer-to-peer interactions**. One teacher flagged that the **wording of the feedback question** itself was confusing. A few teachers suggested expanding the audience of the survey to include parents, especially when it comes to understanding student behaviour.

Additional Comments Related to the Bankee programme: Although not directly about the survey, 33 respondents included **programme-related suggestions** within their feedback. These suggestions echo previous feedback with regards to age suitability of the Bankee programme, and the potential use in creating a Bankee app. There were also comments about enhancing the **reward and punishment mechanisms**—for example, tying rewards to school activities or allowing teachers to fine multiple students simultaneously.

Quantitative Findings

Stage 1 – Initial CFA (Original Model)

The Teacher Classroom Behaviour survey was designed around five domains:

Domain Code	Domain Name	Example Items (Shortened)
KR	Kindness & Respect	Students are kind to peers and teachers, show respect
RU	Following Rules	Following classroom rules, behaving appropriately
RL	Readiness to Learn	Prepared for class, focused, and self-regulated
EG	Engagement	Active participation in lessons and activities
CO	Collaboration	Working in groups, resolving conflicts, helping peers

Initial CFA results indicated reasonable but not optimal fit:

- CFI = 0.865 (acceptable >0.90)
- TLI = 0.842 (acceptable >0.90)
- RMSEA = 0.111 (acceptable <0.08)
- SRMR = 0.063 (acceptable <0.08)

Number of data points used = 271 (of 284)

The original five-domain model did not achieve a strong statistical fit. In practical terms, this means that the way we grouped items in the survey design did not fully align with how teachers perceived and responded to them. The weaker fit indices suggested that some domains overlapped in teachers' minds. For example, teachers often rated students' "Readiness to Learn" and "Engagement" similarly, implying that these behaviours might not be seen as distinct in the classroom context. Likewise, collaboration items appeared closely related to engagement items. This pointed to the need for re-examining the structure to avoid redundancy and better reflect observable patterns in school settings and that an empirical re-check (EFA) would show how teachers naturally differentiate these behaviours.

Stage 2 – EFA (Natural Groupings)

EFA supported five distinct behaviour areas overall, consistent with the programme theory with factoring reliability TLI = 0.854 and RMSEA = 0.086 (90% CI 0.078–0.094); RMSR $\approx$ 0.03, indicating a good residual profile.

The EFA pattern matrix outputting the way items link to subscales indicated that:

- Kindness/Respect items cluster tightly together (Kind and Respectful Behaviours) — teachers see these as a single coherent area.
- Rule-following and rule-breaking (incl. cheating, damage, unruly) cluster together (Following Rules) — consistent with a compliance factor.
- Readiness to learn captures focus, self-regulation, goals, tidy/readiness, and its reverse indicators (distracted/disrupt) (One new factor being: Readiness to learn and following rules).
- Engagement groups participation and activity involvement (Engagement).
- Collaboration shows a bridge with engagement: group work/encouragement/support sit partially with engagement, while conflict resolution aligns more as a distinct collaboration component (Collaboration).

Together, this supports five practical behaviour areas that mirror the original intent, while also showing natural proximity between engagement and collaboration in everyday teaching.

Stage 3 – Amended Structure/CFA (implications)

A separate amended CFA was not conducted for the classroom behaviour tool; instead, we used the EFA evidence to retain the five-domain structure and tighten item wording where overlap or ambiguity appeared (e.g., clarifying what counts as "outside the classroom"; using positively framed stems where possible to reduce response bias). This preserves conceptual breadth while reflecting how teachers actually distinguish behaviours.

Stage 4 – Reliability Analysis

Domain	α
Total scale	0.94
Kindness & Respect (KR)	0.87
Following Rules (RU)	0.80
Readiness to Learn (RL)	0.84
Engagement (EG)	0.87
Collaboration (CO)	0.88

The high reliability scores indicate that items within each domain are consistent in measuring their respective behavioural area.

Interpretation & decisions:

- All five areas are highly reliable, supporting retention of the full five-domain design.
- Given the CFA constraints (fit below ideal thresholds), EFA provides the clearer guide: keep the five areas, but clarify items where engagement and collaboration intersect and ensure negative indicators are balanced by positive indicators to reduce method effects in future waves.
- These changes enhance clarity, scoring stability, and actionability for Bankee's classroom practice.

What we changed based on the results (at a glance):

Retained five domains as supported by EFA; clarified wording and ordering to reflect natural proximities (engagement–collaboration) while preserving distinct reporting; reliability strong across all domains.

3.2.3 Classroom Behaviour (Principals only)

Qualitative Findings

There were no responses from principals on the classroom behaviour survey aside from one comment that indicated that the wording of the feedback question was unclear.

Quantitative Findings

Domain	α
Kindness & Respect (KR)	0.88
Following Rules (RU)	0.65
Readiness to Learn (RL)	0.75
Engagement (EG)	0.94
Collaboration (CO)	0.70
Engagement and Collaboration (EGCO)	0.82

The reliability scores indicate that items within each domain are consistent in measuring their respective behavioural area.

One thing to note is that Cronbach's alpha for Following rules is 0.65, indicating poor reliability. We have followed the same structure as the teacher survey and removed items RU_Classroom and RU_Outside and improved alpha to 0.77.

4. Conclusion

This round of survey design, piloting and validation has provided important insights not only into teachers' and principals' perceptions of student behaviour, engagement, and collaboration, but also into the feasibility and utility of the survey instrument itself. The process of design, piloting, and analysis has shown that the instrument captures a wide range of behavioural and attitudinal indicators in a systematic and structured way, offering a strong foundation for future evaluation work.

It is important to emphasise that the results presented in this report should not be read as impact findings of the Bankee programme. Instead, they represent descriptive statistics of how teachers and principals perceive their students' behaviours at a single point in time. These findings help to identify broad trends - such as strong ratings of kindness, collaboration, and engagement, alongside some concerns around readiness to learn, disruptive behaviour, and rule-following - but they cannot be taken as evidence of programme outcomes in and of themselves.

The real value of this exercise lies in demonstrating the potential of the survey as a rigorous monitoring and evaluation tool. Upon our refinement and validation strategy, the instrument can be deployed in future pre- and post-programme evaluations, enabling stakeholders to track changes over time and to assess the impact of Bankee more directly. By building on the descriptive baseline established here, future rounds of data collection will allow for stronger conclusions about what works, for whom, and under what conditions.

4.1 Using the Survey in Future Evaluations

To move from descriptive insights to causal evidence, the surveys should be embedded in a pre-post evaluation design of the Bankee programme. By collecting baseline data at the start of the school year and follow-up data after a period of implementation, CCCC will be able to measure whether Bankee contributes to measurable changes in financial literacy and classroom behaviour. Appendix G provides sample size calculations to support planning for sufficient statistical power. Using these figures as a guide will ensure that future data collection can generate robust and generalisable findings across Kuwait's school system.

4.2 Updating and Testing the Surveys over Time

As Bankee continues to evolve, it is essential that the surveys also adapt. If programme components, digital features, or reward structures are updated, the surveys should be revised to reflect these changes. Each time modifications are made, renewed reliability and validity testing (using CFA, EFA, and Cronbach's alpha) will be required to ensure that the instruments continue to measure what they are intended to measure, and that results remain comparable and robust. This process will safeguard the long-term utility of the surveys as reliable monitoring and evaluation tools.

4.3 Limitations

Limitations of the pilot and survey design process

Despite the progress made during piloting, several limitations must be acknowledged. First, while the survey instruments were refined to reduce burden, some teachers still noted that the overall length required sustained concentration. This means that future large-scale rollouts may continue to face challenges with respondent fatigue, particularly when surveys are administered during busy school schedules. Second, although care was taken to ensure accurate Arabic-English translation and to test wording clarity, some nuanced differences in interpretation may remain. This could affect how consistently teachers and principals across different school contexts understand and answer questions, pointing to the need for continued monitoring of cross-language equivalence.

The pilot also faced limitations in terms of sample composition. While teacher responses were sufficient to conduct psychometric testing, the principal survey achieved only 12 responses. This small number prevented robust factor analysis and limits confidence in the generalisability of principal-level results.

A further methodological limitation is that we were unable to conduct cognitive interviews as part of the survey development process. Cognitive interviewing is a widely recommended step in survey design that involves asking respondents to “think aloud” as they answer questions, or probing them on how they interpret specific items. This technique helps researchers identify issues such as ambiguous wording, cultural misinterpretations, or unintended assumptions embedded in the survey. Without this stage, there is a risk that some items may still be interpreted differently by respondents than intended, potentially reducing precision and validity. To mitigate this limitation, we incorporated structured open-ended feedback questions at the end of the surveys and throughout selected sections. These invited teachers and principals to comment on question clarity, length, and relevance, as well as provide more general reflections. While not as rigorous as cognitive interviewing, this approach allowed us to capture respondent perspectives in a systematic way and make targeted revisions to improve survey usability. Nevertheless, the absence of formal cognitive interviewing remains a gap that should be addressed in future iterations if resources permit.

Finally, because this pilot involved only a single round of data collection, the results cannot be used to draw conclusions about change over time or causality. They serve as a descriptive baseline and a test of the instruments, rather than evidence of programme effectiveness at this stage.

Limitations anticipated in future pre-post evaluations

Looking ahead, there are also potential limitations to consider when using the validated instruments in future pre-post evaluations. One challenge will be ensuring consistency of respondents across baseline and follow-up. If different individuals complete the surveys at each wave, it may weaken the comparability of results. Another likely challenge is maintaining engagement across repeated data collection points. Even with streamlined surveys, some respondents may experience fatigue or disengagement, which could reduce data quality over time.

Variability in programme implementation across schools presents another limitation. Since schools may differ in how consistently they apply Bankee – for example, in the way rewards are distributed, the degree of digital platform use, or the level of curriculum integration – survey results may reflect differences in implementation as much as differences in programme impact. Furthermore, as highlighted by teacher feedback, external influences such as family financial practices, socio-economic background, and cultural attitudes strongly shape children’s financial literacy and behaviour. These contextual factors make it challenging to isolate Bankee’s effect from wider influences. Finally, as Bankee itself evolves, survey content will need to evolve alongside it. If major programme changes are introduced – such as new digital features, revised reward systems, or expansion to older age groups – the surveys will need to be updated accordingly. Each time revisions are made, renewed reliability and validity testing will be required to ensure that the instruments continue to measure their intended constructs accurately and consistently over time.

4.4 Recommendations for CCCC and Policymakers

Survey implementation and evaluation

- Survey refinements (shortened length, clearer wording, embedded feedback, adjusted surveys based on validity analyses) were completed during this pilot.
- Next, ensure consistent roll-out and longitudinal use of the validated tools, with sample sizes guided by Appendix G.
- Use the surveys within pre-post evaluation designs to generate impact evidence.
- Re-test survey reliability and validity whenever changes are made to Bankee or to the instruments themselves.

Programme development

- Interpret current findings as descriptive only, not causal.
- Strengthen curriculum integration of financial literacy, responding to teacher feedback.
- Enhance Bankee's digital platform usability to improve efficiency and student engagement.
- Expand reward options for older students to maintain age-appropriate motivation.
- Engage parents more directly through workshops, portals, or communication channels, recognising their influence on children's financial behaviour.

In summary, this survey has served its dual purpose: producing an informative snapshot of current perceptions of student behaviour, while also stress-testing the instrument for future evaluative use. The next step will be to refine and embed this tool in systematic monitoring and evaluation frameworks of the Bankee programme, ensuring that future studies can move beyond description towards robust assessments of programme impact.

Appendices

Appendix A: Methodology Supplement

A2.1 Development of Survey Items

Relevant learnings from this workshop included format and structure considerations on survey length, the use of open versus closed questions, the limiting of looped questions, and additional clarity on routing instructions specific to online questionnaires. The team also refined general understanding on variable names for sections of questions and the use of programming instructions for varying types of questions. This workshop provided clarity and the next steps for the inclusion of a translator for the later development of the survey.

Following the QDT workshop, the NatCen teams divided up the initial survey item development process to ensure varied coverage and quality assurance for all surveys. The QDT team was assigned the Financial Literacy and Financial Behaviour survey development while the International Team was assigned the Classroom Behaviour survey (for both teachers and principals). It was decided throughout ongoing client meetings that principals would be best suited to answer the Classroom Behaviour survey due to their limited engagement with classroom financial literacy activities. Upon development of survey items, the QDT team would quality assure the International team's surveys and vice versa for coverage and validation.

To develop the item pool for both surveys, each team began by developing objectives, aims, and parameters of the surveys, including understanding the research questions.

Financial literacy and financial behaviour: In order to determine the aims, objectives and items for the financial literacy and financial behaviour survey, the QDT team collated information from the following sources.

- Research questions from the 2023-2024 evaluation report
- Literature review of other financial literacy evaluation material, including Batty et al. (2016)²
- The Theory of Change from the 2023-2024 Bankee evaluation
- Financial terminologies used in Bankee programme provided by CCCC (2025)

Based on the review of all the documents summarised above, the team identified items and themes the survey would cover, and this list was verified and worked on by NatCen and CCCC collaboratively. The QDT team held several internal working sessions to develop questions and scales to address the themes and items and reach the survey objectives. These methods were validated with the International team and reviewed with CCCC in iterative weekly meetings.

Classroom behaviour: To determine the aims, objectives and items for the classroom behaviour survey, the International team collated information from the following sources.

- Research questions from the 2023-2024 evaluation report
- Bonuses and fines list from current Bankee programme sent by CCCC (2025)
- Bonuses and fines list from past Bankee programme sent by CCCC (2023-2024)

² Batty, M., Collins, J. M., O'Rourke, C., & Odders-White, E. (2016). Evaluating experiential financial capability education: A field study of My Classroom Economy (Financial Empowerment Innovation Fund Research Contract No. TOS-14-F-0028). University of Wisconsin–Madison Center for Financial Security. <https://cfs.wisc.edu/wp-content/uploads/2016/10/mce-report-final.pdf>

- Items list from the BASC-3 Behavioral and Emotional Screening System (BASC-3 BESS), a systematic approach to determine behavioural and emotional strengths and weaknesses of students
- The Theory of Change from the 2023-2024 Bankee evaluation

Based on the review of all the documents summarised above, the team identified several aims and objectives of what the surveys would measure, and this list was verified and worked upon by NatCen and CCCC collaboratively. From each objective emerged items and themes that were then grouped together to thematic sections. After further validation with CCCC, the NatCen team held several internal working sessions to develop questions and scales to address the themes and items and reach the survey objectives. It was decided that frequency and agreement scales, in addition to asking for the proportion of students exhibiting behaviours, were effective methods to test for the items. These methods were validated by the QDT team and reviewed with CCCC in iterative weekly meetings. The survey for principals was then developed similarly to the teachers' classroom behaviour survey with minor edits for length and the differing visibility of principals who have less day-to-day in-class engagement with the Bankee programme.

For both sets of surveys, the partnering teams at NatCen reviewed the survey drafts (the International team reviewed QDT's financial literacy and financial behaviour surveys and the QDT team reviewed International's classroom behaviour). The teams reviewed surveys for length, redundancy, and opportunities to condense the survey. They also aimed to ensure that the survey questions were effective at addressing the broader objectives and research questions.

Afterwards, the NatCen teams continued to co-produce and iterate the surveys based on CCCC feedback at weekly meetings. This co-production process occurred over several weeks until the surveys were approved and translated.

A2.2 Psychometric Testing

Reliability Testing

For both the Teacher Financial Literacy and Behaviour and Classroom Behaviour surveys, alpha coefficients indicated strong internal consistency at both the total scale and subscale levels. This suggests that the items grouped under each domain are reliable indicators of the same conceptual dimension.

For the Principal Classroom Behaviour survey, Cronbach's alpha values were also calculated and showed good internal consistency. While validity testing could not be performed for this group due to sample size limitations, the reliability analysis suggests that the instrument is cohesive and appropriate for continued use.

Together, these analyses informed the refinement of the instruments and confirmed their suitability for ongoing implementation in the Bankee programme's annual evaluations. Additional validation will be conducted in future cycles as larger and more diverse datasets become available.

Alongside alpha coefficients, item - total correlations were examined to determine how strongly each item correlated with the overall subscale score. Items with correlations below 0.40 were considered weak contributors and flagged for potential revision. This means that Cronbach's alpha was calculated for each behavioural and financial literacy survey item and subscale emerging from the EFA. Where when alpha values were lower than desired, item - total correlation analysis was used to pinpoint problematic items for further review and edits.

Embedded Feedback

Structure of the Feedback Section

The feedback section comprised two components:

- Closed-ended rating items: Respondents were asked to rate their level of agreement with a series of statements about the survey experience, including:
 - The survey was of appropriate length.

- The language used was easy to understand.
- The flow of the survey made logical sense.
- The questions were contextually relevant to their school and students.

Responses were captured on a Likert-type scale (Disagree / Somewhat disagree / Neither agree nor disagree / Somewhat agree / Agree / Don't know). These quantitative ratings were intended to provide measurable indicators of respondent satisfaction and to highlight areas where the instrument met or fell short of expectations.

- Open-ended feedback: Respondents were invited to provide further details about their ratings and to suggest improvements to the survey. This allowed participants to elaborate on any concerns, identify questions they found confusing or repetitive, and propose rewording or additional topics they felt should be included.

Rationale for Including Feedback Questions at the Pilot Stage

Because this was a pilot stage with no cognitive interviewing phase, embedding feedback questions directly into the instrument acted as an alternative means of uncovering potential issues with clarity, relevance, and structure. While these questions cannot replace the depth of insight gained through in-person probing, they provide a practical, scalable method for gathering input from all respondents, especially in contexts where fieldwork constraints (e.g., time, cost, or respondent availability) limit opportunities for follow-up interviews.

This feedback mechanism was particularly valuable for the Bankee context, as it allowed both Bankee-participating teachers and principals, who are directly implementing the programme in their schools, to reflect on whether the survey instruments were appropriately tailored to their environment and student population.

Integration with Survey Development and Validation

Responses to these feedback items will be reviewed alongside the statistical reliability and validity findings. Where patterns emerge (such as repeated mentions of unclear terminology or sections perceived as too lengthy), these have been included in our instrument refinement phase. This process will ensure that, when the surveys are rolled out for the full pre-post evaluation next year, they are both psychometrically robust and contextually appropriate for Bankee schools.

Appendix B: Descriptive Statistics Tables

B3.1.1 Financial Literacy (Teachers only)

Understanding of Financial Literacy

Teachers in public schools generally rated students' financial literacy skills highly, with most understanding core concepts such as budgeting, charity, pricing, saving, spending, and value of money "quite well" or "very well." Private school teachers reported similarly high ratings, though with smaller numbers overall and slightly more responses in the mid-range ("quite well"). See Table B1 below for more details.

Table B1. Teachers' Ratings of Pupils' Understanding of Financial Literacy

	FL_Budgeting (Student understanding of Budgeting)				FL_Charity (Student understanding of Charity/Giving)				FL_Planning (Student understanding of Financial Planning)				FL_Pricing (Student understanding of Pricing)			
	Not at all well	Not very well	Quite well	Very well	Not at all well	Not very well	Quite well	Very well	Not at all well	Not very well	Quite well	Very well	Not at all well	Not very well	Quite well	Very well
Public	9	46	113	85	5	9	83	162	9	60	114	70	14	43	110	82
Private	1	11	11	5	0	3	7	18	4	5	11	7	0	4	11	11

	FL_Saving (Student understanding of Saving)				FL_Spending (Student understanding of Spending)				FL_VofM (Student understanding of Value of Money)			
	Not at all well	Not very well	Quite well	Very well	Not at all well	Not very well	Quite well	Very well	Not at all well	Not very well	Quite well	Very well
Public	4	35	109	108	8	18	104	127	5	21	90	136
Private	0	4	7	17	0	1	12	13	0	3	13	10

Financial Terminologies

Students in both public and private schools were generally rated as having strong understanding of financial terminology, with most teachers selecting "quite well" or "very well" across all seven concepts. In public schools, the highest ratings were for bonus and fine terminology, while in private schools, ratings were also high but with a slightly greater proportion of "quite well" responses compared with "very well." See Table B2 below for more details.

Table B2. Teachers' Ratings of Students' Understanding of Financial Terminologies

	FT_Salary (Student understanding of Paychecks/Salary terminologies)				FT_Bonus (Student understanding of Bonus terminology)				FT_Fine (Student understanding of Fine terminology)				FT_Balance (Student understanding of Balance terminology)			
	Not at all well	Not very well	Quite well	Very well	Not at all well	Not very well	Quite well	Very well	Not at all well	Not very well	Quite well	Very well	Not at all well	Not very well	Quite well	Very well
Public	4	21	81	148	0	3	33	223	1	13	55	189	2	12	60	183
Private	0	2	16	11	0	0	11	18	0	0	14	15	0	4	12	13

	FT_Transaction (Student understanding of Transaction terminology)				FT_Account(Student understanding of Account terminology)				FT_ATM (Student understanding of ATM terminology)			
	Not at all well	Not very well	Quite well	Very well	Not at all well	Not very well	Quite well	Very well	Not at all well	Not very well	Quite well	Very well
Public	9	35	113	96	15	54	93	89	9	44	90	106
Private	2	7	13	7	3	8	10	5	0	11	11	5

Concepts about Money

Teachers in both public and private schools rated students' understanding of core money concepts - such as value, trade, sources of money, and the need to make spending choices - very positively. The highest ratings were for understanding that money enables trade, while understanding where day-to-day money comes from and making spending choices, although still high, showed slightly more mid-range scores. See Table B3 below for more details.

Table B3. Teachers' Ratings of Students' Attitudes towards and Understanding of Concepts about Money

	CM_Value (How well do students know that money has value?)				CM_Trade (How well do students know that money enables the buying and selling of goods?)				CM_Money (How well do students know where day-to-day money comes from?)				CM_Choice (How well do students know that they have to make choices when spending money?)			
	Not at all well	Not very well	Quite well	Very well	Not at all well	Not very well	Quite well	Very well	Not at all well	Not very well	Quite well	Very well	Not at all well	Not very well	Quite well	Very well
Public	1	7	72	181	1	3	32	227	2	19	96	142	2	36	115	102
Private	0	4	11	14	0	1	7	21	0	9	13	5	0	6	9	12

Understanding Value of Money as a Concept

Teachers in both public and private schools rated students' understanding of cost and value concepts - such as the link between quantity and cost, the relationship between quality and price, the distinction between wants and needs, financial obligations, and the value of pocket money - as generally high. Public schools tended to report larger proportions of "very well" responses, while private schools showed similar patterns with slightly more balanced distributions across the top two categories. See Table B4 below for more details.

Table B4. Teachers' Ratings of Students' Understanding of Value of Money

	CV_Quantity (How well do students know that an increase in the quantity of items bought leads to an increase in overall cost?)				CV_Quality (How well do students know that higher quality items may have higher prices?)				CV_Want (How well do students know that wants are different from needs?)			
	Not at all well	Not very well	Quite well	Very well	Not at all well	Not very well	Quite well	Very well	Not at all well	Not very well	Quite well	Very well
Public	1	34	116	102	4	30	104	117	4	34	102	120
Private	1	8	11	8	1	4	11	12	2	11	9	7

	CV_Obligation (How well do students know that financial responsibilities come with commitments and obligations?)				CV_Pocket (How well do students know that pocket money has real value in comparison to Bankoz?)			
	Not at all well	Not very well	Quite well	Very well	Not at all well	Not very well	Quite well	Very well
Public	5	46	93	112	4	23	93	135
Private	2	13	7	6	0	7	12	9

Financial Concepts

Students in both public and private schools demonstrated generally strong understanding of key financial concepts such as budgeting, online purchasing safety, debit, savings, and current accounts. Public schools had higher proportions of “quite well” and “very well” responses, while private schools showed similar trends but with more mixed distributions and occasional lower ratings, particularly for bank statements and current accounts. See Table B5 below for more details.

Table B5. Teachers’ Ratings of Students’ Understanding of Financial Concepts

	FC_Budget (How well do students understand budget as a concept?)				FC_Online (How well do students understand how to stay safe when buying things online?)				FC_Statement (How well do students understand bank statements as a concept?)				FC_Debit (How well do students understand debit as a concept?)			
	Not at all well	Not very well	Quite well	Very well	Not at all well	Not very well	Quite well	Very well	Not at all well	Not very well	Quite well	Very well	Not at all well	Not very well	Quite well	Very well
Public	9	57	111	74	4	65	118	68	12	92	99	48	10	61	100	82
Private	1	14	8	6	4	17	4	4	6	15	3	2	4	11	10	1

	FC_Saver (How well do students understand savings account as a concept?)				FC_Current (How well do students understand current accounts as a concept?)			
	Not at all well	Not very well	Quite well	Very well	Not at all well	Not very well	Quite well	Very well
Arabic	14	64	106	66	20	70	95	62
English	2	15	5	4	3	13	7	2

Spending Behaviour, Observed Financial Literacy, and Attitudes Towards Money

Teachers' observations suggest that during field trips, most students adopt a considered approach to spending, with budgeting for the day as the most common behaviour. Many teachers reported noticing differences in students' financial literacy, and most believed that good financial habits should begin between ages 5 and 10. Across both public and private schools, students were generally described as keen to develop good habits, confident in spending decisions, valuing saving, and feeling proud when managing money well. Comfort with seeking advice and levels of anxiety around financial decisions varied more between schools. See Table B6 below for more details.

Table B6. Teachers' Ratings of Students' Spending Behaviour, Observed Financial Literacy and Attitudes Towards Money

During a fieldtrip, if a student goes to a cart to purchase items, how do they spend their money/bankoz,etc..?							Observed differences in students' understanding of financial literacy		Age students should start to develop good financial habits and attitudes				
	Spend at once	Save for gift shop	Budget to spend throughout the day	Buying items for themselves and their peers	Save to donate later	N/A	Yes	No	<5	5-7	8-10	11-13	>14
Public	40	48	126	24	5	21	212	43	28	112	100	20	4
Private	10	4	9	3	0	3	24	3	3	19	5	2	0

FB_Habit (Students are keen to develop good financial habits)						FB_Confident (Students are confident when making spending decisions)					FB_Anxious (Students feel anxious when making financial decisions)				
	Strongly disagree	Disagree	Neither	Agree	Strongly Agree	Strongly disagree	Disagree	Neither	Agree	Strongly Agree	Strongly disagree	Disagree	Neither	Agree	Strongly Agree
Public	1	26	36	113	84	2	23	45	106	83	48	118	51	37	2
Private	1	3	5	16	2	0	5	7	13	3	1	9	11	4	1

FB_Save (Students think saving money is important)						FB_Advice (Students feel comfortable asking for advice when unsure about money matters)					FB_Proud (Students are proud when they manage their money/account balance well)				
	Strongly disagree	Disagree	Neither	Agree	Strongly Agree	Strongly disagree	Disagree	Neither	Agree	Strongly Agree	Strongly disagree	Disagree	Neither	Agree	Strongly Agree
Public	2	28	42	100	87	0	17	33	101	109	1	1	14	69	174
Private	1	7	6	10	3	1	7	2	12	5	1	2	3	10	11

Financial Decisions

Teachers' feedback indicates that the majority of students, particularly in public schools, receive pocket money regularly, with "most" or "all" being the most common categories. Saving behaviours were widely observed, with many students saving often or sometimes rather than spending all their pocket money at once. Charitable giving was also prevalent, with a proportion of students donating money often or always. Private schools showed the same overall trends, but at smaller scales. See Table B7 for more details below.

Table B7. Proportion of students showing good financial decisions

How many students receive pocket money?						FD_Save (Students are able to save some of their pocket money instead of spending it all at once)					FD_Donate (Students show the importance of helping others by donating money)				
	None	Some	Most	All	N/A	Never	Rarely	Sometimes	Often	Always	Never	Rarely	Sometimes	Often	Always
Public	6	38	136	59	25	3	30	96	105	25	2	18	83	98	55
Private	1	14	9	2	3	1	3	13	8	2	2	4	10	8	4

Financial Responsibility

Teachers' reports show that most students actively save money for specific purposes, whether for desired items or for higher-quality purchases. Many also demonstrate forward thinking about how to use their money and take responsibility for saving towards goals. The majority are afforded opportunities to learn from mistakes with their money, though levels of this freedom vary slightly between public and private schools. See Table B8 below for more details.

Table B8. Teachers' ratings of Students' Financial Responsibility

	Save_Actual (Students save money to by specific items)					Save_Motivate (Students are motivated to save for items with better quality)					FR_Sense (Students start thinking about what to do with their money)				
	None	Some	Most	All	N/A	None	Some	Most	All	N/A	Never	Rarely	Sometimes	Often	Always
Public	12	148	70	9	25	9	157	67	7	24	0	15	64	95	82
Private	1	20	5	0	3	0	19	6	1	3	0	2	13	10	3

	FR_Save (Students take responsibility for saving for something they want)					FR_Free (Students have the freedom to make mistakes with their money and learn)				
	Never	Rarely	Sometimes	Often	Always	Never	Rarely	Sometimes	Often	Always
Public	2	22	90	95	48	4	32	77	94	44
Private	0	4	12	7	5	1	7	9	6	4

Financial Information and Safety

Teachers' assessments indicate that most students are viewed as placing high importance on core financial management practices, particularly keeping account information secure, tracking balances, and managing money effectively. Skills such as explaining spending choices, proportionate planning, and checking change are also widely considered important, although some variation exists between public and private schools. See Table B9 below for more details.

Table B9. Proportion of Students' understanding of Financial Information and Safety

	FI_Password (Not sharing their account number/password)					FI_Balance (Keeping track of their account balance)				
	Not at all important	Not very important	Quite important	Very important	N/A	Not at all important	Not very important	Quite important	Very important	N/A
Public	4	33	50	159	18	1	17	72	158	16
Private	0	2	9	18	0	0	3	15	10	1

	FI_Proportionate (Planning their spending with consideration of their current financial situation)					FI_Choice (Explain the choices they make when spending their money)				
	Not at all important	Not very important	Quite important	Very important	N/A	Not at all important	Not very important	Quite important	Very important	N/A
Public	0	34	86	125	19	3	34	102	109	16
Private	0	12	10	5	2	1	9	12	6	1

	FI_Manage (Managing their Money)					FI_Check (Checking that they were given the right change when buying something)				
	Not at all important	Not very important	Quite important	Very important	N/A	Not at all important	Not very important	Quite important	Very important	N/A
Public	7	20	71	152	14	2	23	63	163	13
Private	1	5	16	6	1	2	6	10	9	2

Financial Habits and Longer-Term Impact

Teachers reported that many students display strong saving habits, price comparison skills, and a willingness to seek advice before making purchases. A substantial proportion are also seen as applying lessons from Bankoz to real-life money use, and most believe that the Bankee programme has had at least some positive impact on students' financial behaviour. See Table B10 below for more details.

Table B10. Teachers' Ratings of Students' Financial Habits and Longer-Term Impact of Bankee on their Behaviours and Literacy

	FH_Save (Habit and motivated to save money for larger items)					FH_Compare (Compare prices before deciding what to buy)					FH_Advice (Actually ask for advice from parents, teachers or peers before spending)				
	None	Some	Most	All	N/A	None	Some	Most	All	N/A	None	Some	Most	All	N/A
Public	3	96	108	39	18	10	96	95	50	13	9	101	85	47	22
Private	0	14	10	4	1	2	17	5	4	1	3	16	6	2	2

	Bankoz (Do you think students apply what they learn from Bankoz to real money)				Bankee (To what extent has Bankee changed students' financial behaviour for the better?)			
	No	Some	Yes	N/A	No change	Small change	Large Change	N/A
Public	15	128	107	14	10	124	117	13
Private	0	17	10	2	1	12	15	1

B3.1.2 Classroom Behaviour (Teachers only)

Kind and Respectful Behaviour

Teachers reported that the majority of students regularly demonstrate kindness and respect towards both peers and teachers, with respect towards teachers and staff receiving the highest ratings. Over 70% of teachers across public and private schools estimated that at least 60% of students exhibit kind and respectful behaviour. In contrast, unkind behaviours such as verbal or physical aggression were observed less frequently and were generally rated as “sometimes” or “often” rather than “always.” Estimates of the proportion of students showing unkind behaviour mirrored these ratings, with most teachers suggesting such behaviours are present but not dominant. See Table B11 below for more details.

Table B.11 Teachers' Ratings of Students' Kind and Respectful Behaviour Ratings

	KR_Kind_Peer (Kindness towards peers)					KR_Kind_Teacher (Kindness towards teachers)					KR_Respect_Peer (Respect towards peers)				
	Never	Rarely	Sometimes	Often	Always	Never	Rarely	Sometimes	Often	Always	Never	Rarely	Sometimes	Often	Always

Public	0	8	51	108	83	1	5	29	106	114	1	9	53	109	81
Private	0	2	7	9	10	0	2	2	10	14	0	2	7	10	9

	KR_Respect_Teacher (Respect Towards Teachers and Staff)					KR_Verbal (Verbal Aggression)					KR_Physical (Physical Aggression)				
	Never	Rarely	Sometimes	Often	Always	Never	Rarely	Sometimes	Often	Always	Never	Rarely	Sometimes	Often	Always
Public	1	5	25	85	138	28	57	96	66	7	18	41	66	95	33
Private	0	2	2	8	16	0	3	13	10	2	0	2	9	13	4

Following Rules at School

Teachers reported that most students are actively engaged in classwork and generally follow rules both inside and outside the classroom. Over 70% of teachers estimated that at least 61% of students in their schools consistently follow rules. In contrast, disruptive behaviours such as unruliness, cheating, and property damage were observed but not widespread, with most teachers rating these behaviours as occurring “sometimes” or “often” rather than “always.” When asked about the proportion of students who do not follow rules, the majority of teachers placed their estimates at 40% or below, suggesting that noncompliance is present but limited compared to positive rule-following behaviours. Please see Table B12 below for more details.

Table B12. Teachers’ Ratings of Students’ Following Rules at School Behaviours

	RU_Classwork (Engaging in Classwork)					RU_Classroom (Following Rules and Instructions in the Classroom)					RU_Outside (Following Rules and Instructions outside the Classroom)				
	Never	Rarely	Sometimes	Often	Always	Never	Rarely	Sometimes	Often	Always	Never	Rarely	Sometimes	Often	Always
Public	1	4	25	114	110	0	7	33	95	120	2	15	58	114	62
Private	0	0	5	15	8	0	2	7	11	8	0	3	11	8	6

	RU_Unruly (Unruly Behaviour)					RU_Cheat (Cheating)					RU_Damage (Damage to school property)				
	Never	Rarely	Sometimes	Often	Always	Never	Rarely	Sometimes	Often	Always	Never	Rarely	Sometimes	Often	Always
Public	8	36	92	98	19	5	20	52	117	56	9	29	72	109	36
Private	0	7	13	8	0	0	0	9	12	7	0	2	9	9	8

Readiness to Learn

Teachers reported that most students demonstrate strong readiness to learn, with high ratings for focus, self-regulation, goal-setting, and maintaining a clean environment. More than 80% of teachers estimated that over 60% of students exhibit readiness to learn. However, disruptive behaviours - particularly distraction and disruption - were noted by a large proportion of teachers, though these were more commonly rated as “sometimes” or “often” rather than “always.” Estimates of students with disruptive work habits were generally modest, with most teachers reporting that fewer than 40% of students consistently display such behaviours. See Table B13 below for more details.

Table B13. Teachers’ Ratings of Students’ Readiness to Learn

	RL_Focus (Focusing in class)					RL_Regulate (Ability to self-regulate behaviours)					RL_Goal (Setting academic goals for themselves)				
	Never	Rarely	Sometimes	Often	Always	Never	Rarely	Sometimes	Often	Always	Never	Rarely	Sometimes	Often	Always
Public	1	3	39	130	81	2	9	47	122	75	6	27	82	89	49
Private	0	0	8	16	4	0	0	14	10	4	0	3	11	10	4

	RL_Tidy (Maintaining a clean and organised school environment)					RL_Ready (Showing Readiness to Learn)				
	Never	Rarely	Sometimes	Often	Always	Never	Rarely	Sometimes	Often	Always
Public	3	20	61	102	68	2	7	55	109	82
Private	1	3	8	11	5	0	2	10	13	3

	RL_Distracted (Distracting students)					RL_Disrupt (Disruptive)				
	Never	Rarely	Sometimes	Often	Always	Never	Rarely	Sometimes	Often	Always
Public	10	41	108	83	13	14	49	97	85	9
Private	0	5	18	5	0	0	7	16	5	0

Engagement

Teachers reported very high levels of student engagement across participation, independent activity, and collaboration. The majority of students were described as “often” or “always” engaging in class discussions, activities, and group work. Estimates of overall engagement were similarly strong: over 80% of teachers indicated that more than 60% of their students demonstrate high engagement at school, with particularly high proportions in Arabic-speaking schools. See Table B14 for more details.

Table B14. Teachers’ Ratings of Students’ Engagement in the Classroom

	EG_Participate (Participating in class discussions and answering questions in class)					EG_Activity (Engaging in class activities with no prompting)					EG_Collab (Collaborating with peers in group work)				
	Never	Rarely	Sometimes	Often	Always	Never	Rarely	Sometimes	Often	Always	Never	Rarely	Sometimes	Often	Always
Public	2	3	27	89	132	0	4	29	80	141	3	2	27	101	122
Private	0	0	3	13	12	0	0	10	10	8	0	0	6	12	10

Collaboration

Teachers reported that collaboration skills are a clear strength among students, with high levels of working well with others, supporting peers academically, and encouraging classmates. Conflict resolution was also viewed positively, though with slightly more variation compared to other indicators. Overall, most teachers estimated that over 60% of their students foster teamwork and collaboration at school, highlighting strong peer-to-peer support and cooperative behaviours. See Table B15 for more details.

Table B15. Teachers' Ratings of Students' Collaborative Behaviour in the Classroom

	CO_Group (working well with others)					CO_Support (Supporting Peers Academically)				
	Never	Rarely	Sometimes	Often	Always	Never	Rarely	Sometimes	Often	Always
Public	1	3	25	103	122	3	5	45	120	80
Private	0	0	7	11	10	0	0	9	11	8

	CO_Encourage (Encouraging classmates)					CO_Resolve (Resolving conflicts constructively and calmly)				
	Never	Rarely	Sometimes	Often	Always	Never	Rarely	Sometimes	Often	Always
Public	3	4	46	92	109	2	20	73	82	77
Private	0	2	9	9	8	0	4	13	5	6

B3.1.3 Classroom Behaviour (Principals only)

Kind and Respectful Behaviours

Principals across both public and private schools reported that students generally demonstrate high levels of kindness and respect towards peers and teachers. While private school principals noted some variation, with occasional reports of unkind behaviours such as verbal or physical aggression, public school principals gave consistently positive ratings and estimated that nearly all students exhibit respectful and kind conduct. Overall, the majority of principals in both groups believed that more than 60% of students show kind and respectful behaviours, with public schools presenting a particularly uniform picture of positive student behaviour. See Table B16 below for more details.

Table B16. Principals' ratings of pupils Kind and Respectful Behaviours

	KR_Kind_Peer (Kindness towards peers)					KR_Kind_Teacher (Kindness towards teachers)					KR_Respect_Peer (Respect towards peers)				
	Never	Rarely	Sometimes	Often	Always	Never	Rarely	Sometimes	Often	Always	Never	Rarely	Sometimes	Often	Always
Public	0	0	1	6	3	0	0	0	4	6	0	0	3	5	2

Private	0	0	0	1	1	0	0	0	0	2	0	0	0	2	0
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KR_Respect_Teacher (Respect Towards Teachers and Staff)						KR_Verbal (Verbal Aggression)					KR_Physical (Physical Aggression)				
	Never	Rarely	Sometimes	Often	Always	Never	Rarely	Sometimes	Often	Always	Never	Rarely	Sometimes	Often	Always
Public	0	0	1	5	4	1	2	4	3	0	1	1	5	1	2
Private	0	0	0	0	2	0	0	1	1	0	0	0	0	2	0

Following Rules at School

Principals across both public and private schools reported that students generally follow rules inside and outside the classroom, with private school principals offering uniformly high ratings. Public school principals were also positive but noted greater variation, particularly outside the classroom. Negative behaviours such as unruliness, cheating, and damage to school property were reported more often in public schools, while private school principals described these as rare. Parental involvement was viewed favourably in both contexts. Overall, most public school principals estimated that between 61–80% of students follow school rules, compared to private school principals who consistently placed this figure at 81–100%. Estimates of students who do not follow rules were correspondingly low in both groups, though slightly higher in public schools. See Table B17 for more details.

Table B17. Principals' ratings of items measuring following rules at school

RU_Classroom (Following Rules and Instructions in the Classroom)						RU_Outside (Following Rules and Instructions outside the Classroom)					RU_Unruly (Unruly Behaviour)				
	Never	Rarely	Sometimes	Often	Always	Never	Rarely	Sometimes	Often	Always	Never	Rarely	Sometimes	Often	Always
Public	0	0	0	7	3	0	0	2	8	0	0	1	3	5	1
Private	0	0	0	0	2	0	0	0	2	0	0	0	1	1	0

RU_Cheat (Cheating)					RU_Damage (Damage to school property)					RU_Parental (Parental Involvement)					
	Never	Rarely	Sometimes	Often	Always	Never	Rarely	Sometimes	Often	Always	Never	Rarely	Sometimes	Often	Always

Public	0	0	3	4	3	0	2	3	3	2	0	1	4	2	3
Private	0	0	0	1	1	0	0	0	1	1	0	0	0	2	0

Readiness to Learn

Principals in both public and private schools reported that students are generally punctual, maintain tidiness, and show strong readiness to learn. Public school principals estimated that between 61–100% of students demonstrate readiness, while private school principals were unanimous in placing this figure at 81–100%. Distraction and disruption were reported more frequently in public schools, though still at moderate levels, whereas private school principals described such behaviours as relatively rare. Estimates of students with disruptive work habits were correspondingly low in both groups, with public school principals suggesting that 0–40% of students may be disruptive compared to private school principals, who limited their estimates to just 0–20%. See Table B18 below for more details.

Table B18. Principals' ratings of students' readiness to learn

	RL_Timely (Arriving to School on time)					RL_Tidy (Maintaining a clean and organised school environment)					RL_Ready (Showing Readiness to Learn)				
	Never	Rarely	Sometimes	Often	Always	Never	Rarely	Sometimes	Often	Always	Never	Rarely	Sometimes	Often	Always
Public	0	0	1	6	3	0	1	2	4	3	0	0	1	7	2
Private	0	0	0	1	1	0	0	0	1	1	0	0	0	1	1

	RL_Distracted (Distracting students)					RL_Disrupt (Disruptive)				
	Never	Rarely	Sometimes	Often	Always	Never	Rarely	Sometimes	Often	Always
Public	0	0	8	2	0	0	0	9	1	0
Private	0	0	1	1	0	0	0	1	1	0

Engagement

Principals in both public and private schools described student engagement as consistently strong across participation in discussions, class activities, and group collaboration. Public school principals reported that most students engaged “often” or “always,” with overall estimates placing 61–100% of students in the

highly engaged category. Private school principals gave similarly positive ratings, unanimously reporting that the majority of their students demonstrate high levels of engagement, with estimates clustered at 61–100%. See Table B19 below for more details.

Table B19. Principals' ratings of students' engagement in the classroom

	EG_Participate (Participating in class discussions and answering questions in class)					EG_Activity (Engaging in class activities with no prompting)					EG_Collab (Collaborating with peers in group work)				
	Never	Rarely	Sometimes	Often	Always	Never	Rarely	Sometimes	Often	Always	Never	Rarely	Sometimes	Often	Always
Public	0	1	0	7	2	0	1	3	6	0	0	1	1	5	2
Private	0	0	0	0	2	0	0	0	1	1	0	0	0	0	2

Collaboration

Principals in both public and private schools reported that students display strong collaborative behaviours, including working well with others, supporting peers academically, encouraging classmates, and resolving conflicts calmly. Public school principals estimated that between 61–100% of students foster teamwork and collaboration, with most selecting the higher ranges. Private school principals echoed this view, unanimously reporting that the majority of students collaborate effectively, with estimates clustered at 61–100%. See Table B20 below for more details.

Table B20. Principals' ratings of students' collaboration in the classroom

	CO_Group (working well with others)					CO_Support (Supporting Peers Academically)				
	Never	Rarely	Sometimes	Often	Always	Never	Rarely	Sometimes	Often	Always
Public	0	0	0	5	5	0	0	2	4	4
Private	0	0	0	1	1	0	0	0	1	1

	CO_Encourage (Encouraging classmates)					CO_Resolve (Resolving conflicts constructively and calmly)				
	Never	Rarely	Sometimes	Often	Always	Never	Rarely	Sometimes	Often	Always
0	0	0	1	5	4	0	2	0	4	4
0	0	0	0	1	1	0	0	0	1	1

Appendix C: Final Teacher Survey

Financial Literacy Survey for Teachers [5-8 mins]

{ASK ALL}

UniqueID

Please enter the unique participant identifier provided to you:

[OPEN TEXT]

{ASK ALL}

Classes

How many classes do you teach?

[OPEN TEXT]

{ASK ALL}

Grades

What grade levels do you teach?

[OPEN TEXT]

Understanding of Financial Terminologies and their Contexts Introduced by Bankee

FinLitIntro

The first set of questions are about students' understanding of certain financial concepts and terms with respect to learnings and applications in the Bankee programme. Please answer the questions thinking about students you teach across different classes and grades. Your responses will help us assess their level of awareness and comprehension, where they encounter these terms, and any challenges they may face.

There are no right or wrong answers to these questions. We would simply like to have your opinions.

{ASK ALL}

FinTopics

How well do you think students understand the following financial literacy topics?

	Not at all well	Not very well	Quite well	Very well	Don't know
Budgeting (i.e. Managing short-term income and spending)					
Financial Planning (i.e. Setting long-term financial goals)					
Pricing					
Spending					
Value of money					

{ASK ALL}

FinTerms

How well do you think students understand the following financial terms?

Select one per row

	Not at all well	Not very well	Quite well	Very well	Don't know
Bonuses					
Fines					
Balance					

{ASK ALL}

FinTermCont

In which of the following contexts have you observed students using financial terms such as bonuses, fines, balance, budgeting, financial planning, price, value etc

Select all that apply

1. During classroom discussions with teachers
2. In school activities or games (e.g., using pocket money, purchased vouchers/tickets)
3. In peer-to-peer conversations
4. Feedback from parents
5. I have not observed or are aware of students using these terms in any context
6. Other (please specify) [OPEN TEXT]
7. Don't know

{ASK ALL}

FinTermWhere

Where do you think students have learned these financial terms from?

Select all that apply

1. Interacting with the Bankee program
2. Conversations with teachers
3. Conversation with peers or friends
4. Other (please specify) [OPEN TEXT]
5. Don't know

Understanding the Value of Money

{ASK ALL}

MonValCon1

How well do you think students understand the following concepts about money?

Select one per row

	Not at all well	Not very well	Quite well	Very well	Don't know
That money has value.					
That money enables the buying and					

selling of goods and services.					
Where day-to-day money comes from.					

Understanding of Financial Terminologies Beyond Those Introduced by Bankee

BeyondBankee2 Intro

The next set of questions are about students' understanding of certain financial concepts and terms with respect to applications beyond the Bankee programme (real-world contexts). Please answer the questions thinking about students you teach across different classes and grades. Your responses will help us assess their level of awareness and comprehension, where they encounter these terms, and any challenges they may face.

{ASK ALL}

BeyondBankee2

During a fieldtrip, if a student goes to a cart to purchase water/items/snacks, would they understand how to budget the money they were given to last them the whole day?

Students would....

1. ...budget their money to have enough to spend throughout the day.
2. ...save their money to buy toys at the gift shop.
3. ...spend all their money in one go.
4. ...save their money and donate it to a person in need next to the factory/at the fieldtrip location.
5. ...buy items for themselves and their peers.
6. Other (please specify) [OPEN TEXT]
7. Don't know

{ASK ALL}

BeyondBankee1

How well do you think students understand the following financial concepts?

Select one option per row

Term	Not at all well	Not very well	Quite well	Very well	Don't know
Budget					
How to stay safe when buying things online					
Bank statements					
Debit cards					
Savings account					
Current account					

Account number					
-------------------	--	--	--	--	--

Student Differences in Financial Literacy

{ASK ALL}

FinLitDiff

Among students from the same classroom, have you observed variety in individual student understanding of financial literacy?

- 1. Yes, students have varied understanding and some students grasp financial concepts and terms better than others.
- 2. No, all students seem to have a similar understanding.
- 3. Don't know

{ASK IF FinLitDiff = 1}

FinLitDiffReasons

What factors, if any, do you think might contribute to differences in individual students' understanding of financial literacy?

[OPEN TEXT]

Financial Behaviour Survey for Teachers [8-10 mins]

Students' Attitudes Towards Financial Behavior

FinBehavIntro

The next set of questions are about understanding students' financial behaviour in schools. Please answer the questions thinking about students you teach across different classes and grades. Your responses will help us gauge how well students are able to make financial decisions, set financial goals, and any challenges they may face in doing so.

{ASK ALL}

FinAge

At what age do you think students should start to develop habits and attitudes related to money (e.g., saving, spending, etc.)?

1. Below 5 years
2. 5 – 7 years
3. 8 – 10 years
4. 11 – 13 years
5. Above 14 years
6. Don't know

{ASK ALL}

FinHabits

To what extent do you agree or disagree with the following statements about students' attitudes towards money and financial behavior?

Most students...

Select one option per row

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Don't know
are keen to develop good financial habits						
are confident when making spending decisions						
think saving money is important						
feel comfortable asking for advice when they are unsure about money matters (e.g., spending)						
are proud when they manage their money/						

account balance well						
-------------------------	--	--	--	--	--	--

Ability to Make Financial Decisions

{ASK ALL}

PocMon

To the best of your knowledge, how many of your students receive pocket money from their parents/carers?

1. None
2. Some
3. Most
4. All
5. Don't know

{ASK ALL}

MonSave

To the best of your knowledge, how many of your students save money to buy specific items?

1. None
2. Some
3. Most
4. All
5. Don't know

{ASK ALL}

SaveGoal

To the best of your knowledge, how many of your students are motivated to save money for items of higher value and quality rather than spending on several items of smaller value and lower quality?

1. None
2. Some
3. Most
4. All
5. Don't know

{ASK ALL}

FinDecide

How often, if at all, do you think students display the following financial responsibilities?

Most students...

Select one option per row

	Never	Rarely	Sometimes	Often	Always	Don't know
are able to save some of their pocket money instead of spending it all immediately						
show an understanding of the						

importance of helping others by donating money or resources						
start thinking about what to do with their money						
take responsibility for saving for something they want						

Privacy and Personal Financial Information

{ASK ALL}

PrivacyInfo

We want to understand how well students grasp the importance of keeping financial information private.

How important do you think most students feel about doing the following?

Select one option per row

	Not at all important	Not very important	Quite important	Very important	Don't know
Not sharing their account number/ password					
Keeping track of their account balance.					
Planning their spending with consideration of their current financial situation.					
Explain the choices they make when spending their money.					
Managing their money.					
Checking that they were given the right change when buying something.					

Connecting Bankoz to Real-Life Financial Habits

{ASK ALL}

BankozMonVal

Do you think students apply what they've learned from Bankoz when spending real money (including pocket money)?

1. Yes, they show better spending habits with real money.
2. Some students apply it, but others don't.
3. No, they don't seem to transfer these habits.
4. Don't know

{ASK ALL}

BankozPocMon

Have you observed students making a plan for how to spend their pocket money (similar to how they plan spending Bankoz)?

1. Yes, they make a plan and stick to it.
2. Yes, they make a plan but often don't stick to it.
3. No, they don't plan their spending.
4. Don't know

{ASK ALL}

FinBankeeFB

To what extent has Bankee changed students' financial behavior for the better?

1. It has not changed their behaviour
2. To a small extent
3. To a large extent
4. Don't know

{ASK ALL}

FinBankeeFB2

Is there any other feedback you can give us about how to improve the Bankee program in the future?

[OPEN TEXT]

Classroom Behaviour Survey for Teachers [8-10 mins]

{ASK ALL} UniqueID

Please enter the unique participant identifier provided by the researcher [OPEN TEXT]

{ASK ALL}

Grades

What grade levels do you teach?

{ASK ALL}

Classes

How many classes do you teach?

[OPEN TEXT]

{ASK ALL}

What subjects do you teach?

Select all that apply

- ☐ Arabic
- ☐ English
- ☐ Math
- ☐ Science
- ☐ Music
- ☐ Islamic Studies
- ☐ Social Studies
- ☐ Physical Education
- ☐ Computer / IT
- ☐ All classes / Homeroom teacher
- ☐ Special education support
- ☐ Other: [open text] _____

{ASK ALL} Attitudes

How often do you think students exhibit these behaviors?

<i>Kind and respectful behaviors</i>	Never	Rarely	Sometimes	Often	Always	Don't know
Kindness towards teachers and staff						
Respect towards peers						
Respect towards teachers and staff						

What proportion of students do you think exhibit kind and respectful behaviors at school?

Select one

- 0-20%
- 21-40%
- 41-60%
- 61-80%
- 81-100%

{ASK ALL} AcademicBehaviour

How often do you think students exhibit these behaviors?

<i>Following rules and readiness to learn</i>	Never	Rarely	Some-times	Often	Always	Don't know
Following rules and instructions in the classroom						
Following rules outside of the classroom						
Focusing in class						
Ability to self-regulate behaviors						
Setting academic goals for themselves						
Maintaining a clean and organized classroom environment (e.g. keeping their desks tidy).						
Showing readiness to learn (e.g. quiet and attentive, having necessary materials ready, seated and facing the teacher).						
Resolving conflicts constructively and calmly						

What proportion of students do you think follow rules and exhibit readiness to learn?

Select one

- 0-20%
- 21-40%
- 41-60%
- 61-80%
- 81-100%

{ASK ALL} RuleBreak

How often do you think students exhibit these behaviors?

<i>Significant Rule Breaking</i>	Never	Rarely	Some-times	Often	Always	Don't know
Cheating on assignments and tests						
Damaging school property						

What proportion of students do you think exhibit significant rule breaking at school?

Select one

- ☐ 0-20%
- ☐ 21-40%
- ☐ 41-60%
- ☐ 61-80%
- ☐ 81-100%

{ASK ALL} Disrupt

How often do you think students exhibit these behaviors?

<i>Disruptive and aggressive behaviour</i>	Never	Rarely	Some-times	Often	Always	Don't know
Not following classroom instructions						
Disrupting and distracting self						
Disrupting and distracting others						
Verbal aggression						

What proportion of students do you think exhibit disruptive and aggressive behaviour at school?

Select one

- ☐ 0-20%
- ☐ 21-40%
- ☐ 41-60%
- ☐ 61-80%
- ☐ 81-100%

{ASK ALL} Engagement

How often do you think students exhibit these behaviors?

<i>Demonstrating engagement</i>	Never	Rarely	Some-times	Often	Always	Don't know
Participating in discussions and answering questions in class						
Engaging in class activities and tasks without prompts from the teacher						
Collaborating with peers in group work						

What proportion of students do you think demonstrate engagement at school?

Select one

- ☐ 0-20%
- ☐ 21-40%

- 41-60%
- 61-80%
- 81-100%

{ASK ALL} Learning Differences

[BASELINE ONLY] What kinds of challenges do you face when supporting students who seem to learn or behave differently from most of their peers - for example, those who struggle with attention, reading, or keeping up in class, beyond that of the average student? Please provide examples and explanations. [OPEN TEXT]

[ENDLINE ONLY] What challenges have you faced in managing students who seem to learn or behave differently from most of their peers and have you used Bankee to address them? Please provide examples and explanations. [OPEN TEXT]

{POST ONLY} Overall

Overall, how has Bankee changed students' behavior?
[OPENTEXT]

Appendix D: Final Principal Classroom Behaviour Survey

Classroom Behaviour Survey for Principals

{ASK ALL} UniqueID

Please enter the unique participant identifier provided by the researcher [OPEN TEXT]

{ASK ALL} Visits

How often do you conduct classroom visits?

Select one

- Once a week
- One every two weeks
- Once a month
- Twice a month
- Other (please specify) [OPEN TEXT]

{ASK ALL}

What best describes your role?

Select one

- Principal
- Vice-principal
- Social worker
- Other: [open text] _____

{ASK ALL} Attitudes

How often do you think students exhibit these behaviors?

<i>Kind and respectful behaviors</i>	Never	Rarely	Sometimes	Often	Always	Don't know
Kindness towards teachers and staff						
Respect towards peers						
Respect towards teachers and staff						

What proportion of students do you think exhibit kind and respectful behaviors at school?

Select one

- ☐ 0-20%
- ☐ 21-40%
- ☐ 41-60%
- ☐ 61-80%
- ☐ 81-100%

{ASK ALL} Academic Behaviour

How often do you think students exhibit these behaviors?

<i>Following rules and readiness to learn</i>	Never	Rarely	Sometimes	Often	Always	Don't know
Following rules outside of the classroom						
Arriving to school on time						
Maintaining a clean and organized school environment						
Showing readiness to learn (e.g. quiet and attentive, having necessary materials ready, seated and facing the teacher).						
Resolving conflicts constructively and calmly						

What proportion of students do you think follow rules and exhibit readiness to learn?

Select one

- ☐ 0-20%
- ☐ 21-40%
- ☐ 41-60%
- ☐ 61-80%
- ☐ 81-100%

{ASK ALL} Rule Break

How often do you think students exhibit these behaviors?

<i>Significant Rule Breaking</i>	Never	Rarely	Sometimes	Often	Always	Don't know
---	--------------	---------------	------------------	--------------	---------------	-------------------

Cheating on assignments and tests						
Damaging school property						
Breaking rules to a significant extent that warrants parental involvement						

What proportion of students do you think exhibit significant rule breaking at school?

Select one

- ☐ 0-20%
- ☐ 21-40%
- ☐ 41-60%
- ☐ 61-80%
- ☐ 81-100%

{ASK ALL} Disrupt

How often do you think students exhibit these behaviors?

<i>Disruptive and aggressive behaviour</i>	Never	Rarely	Some-times	Often	Always	Don't know
Not following classroom instructions						
Disrupting and distracting self						
Disrupting and distracting others						
Verbal aggression						

What proportion of students do you think exhibit disruptive and aggressive behaviour at school?

Select one

- ☐ 0-20%
- ☐ 21-40%
- ☐ 41-60%
- ☐ 61-80%
- ☐ 81-100%

{ASK ALL} Engagement

During your classroom check-ins, how often do you think students exhibit these behaviors?

<i>Demonstrating engagement</i>	Never	Rarely	Some-times	Often	Always	Don't know
Participating in discussions and answering questions in class						
Engaging in class activities and tasks without prompts from the teacher						

Collaborating with peers in group work						
--	--	--	--	--	--	--

What proportion of students do you think demonstrate engagement at school?

Select one

- ☐ 0-20%
- ☐ 21-40%
- ☐ 41-60%
- ☐ 61-80%
- ☐ 81-100%

{ASK ALL} Learning Differences

What kinds of challenges do you face when supporting students who seem to learn or behave differently from most of their peers - for example, those who struggle with attention, reading, or keeping up in class, beyond that of the average student? Please provide examples and explanations. [OPEN TEXT]

{POST ONLY} Overall

Overall, how has Bankee changed students' behavior? [OPENTEXT]

Appendix E: Original Teacher and Principal Surveys

Classroom Behaviour Survey for Teachers

{ASK ALL} UniqueID

Please enter the unique participant identifier provided by the researcher [OPEN TEXT]

{ASK ALL}

Grades

What grade levels do you teach?

{ASK ALL}

Classes

How many classes do you teach?

[OPEN TEXT]

{ASK ALL}

What subjects do you teach?

Select all that apply

- ☐ Arabic
- ☐ English
- ☐ Math

- Science
- Music
- Islamic Studies
- Social Studies
- Physical Education
- Computer / IT
- Other: [open text] _____

{ASK ALL} Attitudes

How often do you think students exhibit these behaviors?

<i>Kind and respectful behaviors</i>	Never	Rarely	Sometimes	Often	Always	Don't know
Kindness towards peers						
Kindness towards teachers and staff						
Respect towards peers						
Respect towards teachers and staff						

What proportion of students do you think exhibit kind and respectful behaviors at school?

Select one

- 0-20%
- 21-40%
- 41-60%
- 61-80%
- 81-100%

<i>Unkind and disrespectful behavior</i>	Never	Rarely	Sometimes	Often	Always	Don't know
Verbal aggression						
Physical aggression						

What proportion of students do you think exhibit unkind and disrespectful behaviors at school?

Select one

- 0-20%
- 21-40%
- 41-60%
- 61-80%
- 81-100%

{ASK ALL} Rules

How often do you think students exhibit these behaviors?

Following rules	Never	Rarely	Some-times	Often	Always	Don't know
Engaging in classwork (e.g. completing assignments on time)						
Following rules and instructions in the classroom						
Following rules outside of the classroom						

What proportion of students do you think follow rules at school?

Select one

- ☐ 0-20%
- ☐ 21-40%
- ☐ 41-60%
- ☐ 61-80%
- ☐ 81-100%

Not following rules	Never	Rarely	Some-times	Often	Always	Don't know
Not following classroom instructions						
Cheating on assignments and tests						
Damaging school property						

What proportion of students do you think do not follow rules at school?

Select one

- ☐ 0-20%
- ☐ 21-40%
- ☐ 41-60%
- ☐ 61-80%
- ☐ 81-100%

{ASK ALL} Academic Behaviour

How often do you think students exhibit these behaviors?

Readiness to learn	Never	Rarely	Some-times	Often	Always	Don't know
Focusing in class						
Ability to self-regulate behaviors						
Setting academic goals for themselves						
Maintaining a clean and organized classroom environment (e.g. keeping their desks tidy).						

Showing readiness to learn (e.g. quiet and attentive, having necessary materials ready, seated and facing the teacher).						
---	--	--	--	--	--	--

What proportion of students do you think exhibit readiness to learn?

Select one

- ☐ 0-20%
- ☐ 21-40%
- ☐ 41-60%
- ☐ 61-80%
- ☐ 81-100%

<i>Disruptive work habits</i>	Never	Rarely	Some-times	Often	Always	Don't know
Disrupting and distracting self						
Disrupting and distracting others						

What proportion of students do you think exhibit disruptive work habits at school?

Select one

- ☐ 0-20%
- ☐ 21-40%
- ☐ 41-60%
- ☐ 61-80%
- ☐ 81-100%

{ASK ALL} Engagement

How often do you think students exhibit these behaviors?

<i>Demonstrating engagement</i>	Never	Rarely	Some-times	Often	Always	Don't know
Participating in discussions and answering questions in class						
Engaging in class activities and tasks without prompts from the teacher						
Collaborating with peers in group work						

What proportion of students do you think demonstrate engagement at school?

Select one

- ☐ 0-20%
- ☐ 21-40%
- ☐ 41-60%
- ☐ 61-80%
- ☐ 81-100%

{ASK ALL} Collaboration

How often do you think students exhibit these behaviors?

<i>Fostering collaboration and teamwork</i>	Never	Rarely	Some-times	Often	Always	Don't know
Working well with others						
Supporting other peers academically						
Encouraging classmates by offering positive reinforcement and motivation						
Resolving conflicts constructively and calmly						

What proportion of students do you think foster collaboration and teamwork at school?

Select one

- ☐ 0-20%
- ☐ 21-40%
- ☐ 41-60%
- ☐ 61-80%
- ☐ 81-100%

{ASK ALL} LearningDifferences

[BASELINE ONLY] What challenges do you face in managing the behavior of students with learning differences? Please provide examples and explanations.

[ENDLINE ONLY] What challenges have you faced in managing students with learning differences and have you used Bankee to address them? Please provide examples and explanations. [OPEN TEXT]

{POST ONLY} Overall

Overall, how has Bankee changed students' behavior?

[OPENTEXT]

{ASK ALL} FeedbackScale

Please state if you agree / disagree with the statements below about this survey.

	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree
The length of the survey was appropriate					

The language used in the survey was understandable					
The flow of the survey makes sense					
The questions are contextually relevant to my school and students					

{ASK ALL} FeedbackText

Could you please provide further details on the above and any additional feedback you have on the survey? [OPENTEXT]

Financial Literacy Survey for Teachers

Financial Literacy [8-10 mins]

{ASK ALL}

UniqueID

Please enter the unique participant identifier provided to you:

[OPEN TEXT]

{ASK ALL}

Classes

How many classes do you teach?

[OPEN TEXT]

{ASK ALL}

Grades

What grade levels do you teach?

[OPEN TEXT]

Understanding of Financial Terminologies and their Contexts Introduced by Bankee

FinLitIntro

The first set of questions are about students' understanding of certain financial concepts and terms including how students perceive the value of money. Please answer the questions thinking about students you teach across different classes and grades. Your responses will help us assess their level of awareness and comprehension, where they encounter these terms, and any challenges they may face.

There are no right or wrong answers to these questions. We would simply like to have your opinions.

{ASK ALL}

FinTopics

How well do you think students understand the following financial literacy topics?

	Not at all well	Not very well	Quite well	Very well	Don't know
Budgeting					
Charity/ Giving					

Financial Planning					
Pricing					
Saving					
Spending					
Value of money (e.g., is the toy worth the price?)					

{ASK ALL}

FinTerms

How well do you think students understand the following financial terms?

Select one per row

	Not at all well	Not very well	Quite well	Very well	Don't know
Paychecks/ Salary					
Bonuses					
Fines					
Balance					
Transaction					
Account number					
Deposit/ Withdrawal					

{ASK ALL}

FinTermCont

In which of the following contexts have you observed students using financial terms such as paychecks, transactions, deposits etc.?

Select all that apply

1. During classroom discussions with teachers
2. In school activities/games (e.g., using pocket money, purchased with Bankoz)
3. In peer-to-peer conversations
4. Feedback from parents
5. I have not observed or are aware of students using these terms in any context
6. Other (please specify) [OPEN TEXT]
7. Don't know

{ASK ALL}

FinTermWhere

Where do you think students have learned these financial terms from?

Select all that apply

1. Interacting with the Bankee program
2. Conversations with teachers
3. Conversation with peers or friends

4. Other (please specify) [OPEN TEXT]
5. Don't know

Understanding the Value of Money

{ASK ALL}

MonValCon1

How well do you think students understand the following concepts about money?

Select one per row

	Not at all well	Not very well	Quite well	Very well	Don't know
That money has value.					
That money enables the buying and selling of goods and services.					
Where day-to-day money comes from.					
That they have to make choices when spending money.					

{ASK ALL}

MonValCon2

How well do you think students understand the following concepts in relation to value of money?

Select one option per row

Concept	Not at all well	Not very well	Quite well	Very well	Don't know
An increase in the quantity of items bought leads to an increase in overall cost.					
Higher quality items may have higher prices.					
Wants (e.g. games) are different from needs (e.g. food).					
Financial responsibilities come with commitments and obligations.					

Pocket money has real value in comparison to Bankoz (fictional currency introduced by Bankee).					
--	--	--	--	--	--

Understanding of Financial Terminologies Beyond Those Introduced by Bankee

{ASK ALL}

BeyondBankee1

How well do you think students understand the following financial concepts?

Select one option per row

Term	Not at all well	Not very well	Quite well	Very well	Don't know
Budget					
How to stay safe when buying things online					
Bank statements					
Debit cards					
Savings account					
Current account					

{ASK ALL}

BeyondBankee2

During a fieldtrip, if a student goes to a cart to purchase water/items/snacks, would they understand how to budget the money they were given to last them the whole day?

Students would....

1. ...budget their money to have enough to spend throughout the day.
2. ...save their money to buy toys at the gift shop.
3. ...spend all their money in one go.
4. ...save their money and donate it to a person in need next to the factory/at the fieldtrip location.
5. ...buy items for themselves and their peers.
6. Other (please specify) [OPEN TEXT]
7. Don't know

Student Differences in Financial Literacy

{ASK ALL}

FinLitDiff

Have you observed any differences in students' understanding of financial literacy?

1. Yes, some students grasp financial concepts and terms better than others.
2. No, all students seem to have a similar understanding.
3. Don't know

{ASK IF FinLitDiff = 1}

FinLitDiffReasons

What factors, if any, do you think might contribute to differences in students' understanding of financial literacy?

[OPEN TEXT]

Financial Behaviour [15 mins]

Students' Attitudes Towards Financial Behavior

FinBehavIntro

The next set of questions are about understanding students' financial behaviour in schools. Please answer the questions thinking about students you teach across different classes and grades. Your responses will help us gauge how well students are able to make financial decisions, set financial goals, and any challenges they may face in doing so.

There are no right or wrong answers to these questions. We would simply like to know your opinions.

{ASK ALL}

FinAge

At what age do you think students should start to develop habits and attitudes related to money (e.g., saving, spending, etc.)?

1. Below 5 years
2. 5 – 7 years
3. 8 – 10 years
4. 11 – 13 years
5. Above 14 years
6. Don't know

{ASK ALL}

FinHabits

To what extent do you agree or disagree with the following statements about students' attitudes towards money and financial behavior?

Most students...

Select one option per row

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Don't know
are keen to develop good financial habits						
are confident when making spending decisions						
feel anxious when they have to make financial decisions						
think saving money is important						
feel comfortable asking for advice when they are unsure about money						

matters (e.g., spending)						
are proud when they manage their money/ account balance well						

Ability to Make Financial Decisions

{ASK ALL}

PocMon

To the best of your knowledge, how many of your students receive pocket money from their parents/carers?

1. None
2. Some
3. Most
4. All
5. Don't know

{ASK ALL}

FinDecide

How often, if at all, do you think students display the following abilities to make financial decisions?

Most students...

Select one option per row

	Never	Rarely	Sometimes	Often	Always	Don't know
are able to save some of their pocket money instead of spending it all immediately						
show an understanding of the importance of helping others by donating money or resources						

Take Financial Responsibility and Set Financial Goals

{ASK ALL}

MonSave

To the best of your knowledge, how many of your students save money to buy specific items?

1. None

2. Some
3. Most
4. All
5. Don't know

{ASK ALL}

SaveGoal

To the best of your knowledge, how many of your students are motivated to save money for larger items rather than spending on small items?

1. None
2. Some
3. Most
4. All
5. Don't know

{ASK ALL}

FinResp

How often, if at all, do you think students display the following financial responsibilities?

Most students...

Select one option per row

	Never	Rarely	Sometimes	Often	Always	Don't know
start thinking about what to do with their money						
take responsibility for saving for something they want						
have the freedom to start making mistakes with their money and learn from them.						

Privacy and Personal Financial Information

{ASK ALL}

PrivacyInfo

We want to understand how well students grasp the importance of keeping financial information private.

How important do you think most students feel about doing the following?

Select one option per row

	Not at all important	Not very important	Quite important	Very important	Don't know

Not sharing their account number/ password					
Keeping track of their account balance.					
Planning their spending with consideration of their current financial situation.					
Explain the choices they make when spending their money.					
Managing their money.					
Checking that they were given the right change when buying something.					

Connecting Bankoz to Real-Life Financial Habits

{ASK ALL}

FinBankee

To the best of your knowledge, how many of your students are...

Select one option per row

	None	Some	Most	All	Don't know
Motivated to save money for larger items rather than spending on small items					
Compare prices before deciding what to buy					
Ask for advice from teachers, parents or peers before spending money					

{ASK ALL}

BankozMonVal

Do you think students apply what they've learned from Bankoz when spending real money (including pocket money)?

1. Yes, they show better spending habits with real money.
2. Some students apply it, but others don't.
3. No, they don't seem to transfer these habits.
4. Don't know

{ASK ALL}

BankozPocMon

Have you observed students making a plan for how to spend their pocket money (similar to how they plan spending Bankoz)?

1. Yes, they make a plan and stick to it.
2. Yes, they make a plan but often don't stick to it.
3. No, they don't plan their spending.
4. Don't know

{ASK ALL}

FinBankeeFB

To what extent has Bankee changed students' financial behavior for the better?

1. It has not changed their behaviour
2. To a small extent
3. To a large extent
4. Don't know

{ASK ALL}

FinBankeeFB2

Is there any other feedback you can give us about how to improve the Bankee program in the future?

[OPEN TEXT]

General Feedback

{ASK ALL}

Feedback

We would like to hear your feedback on how you found answering questions in this survey.

Please state if you agree or disagree with the statements below.

Select one option per row.

	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Don't know
The survey was of appropriate length.						
The language used in the survey was easy to understand.						
The flow of the survey made logical sense.						
The questions asked were contextually relevant to my school and students.						

{ASK ALL}

FeedbackText

Could you please provide further details on the above and any additional feedback you have on the survey?

[OPENTEXT]

Classroom Behaviour Survey for Principals

{ASK ALL} UniqueID

Please enter the unique participant identifier provided by the researcher [OPEN TEXT]

{ASK ALL} Visits

How often do you conduct classroom visits?

Select one

- ☐ Once a week
- ☐ One every two weeks
- ☐ Once a month
- ☐ Twice a month
- ☐ Other (please specify) [OPEN TEXT]

{ASK ALL} Attitudes**How often do you think students exhibit these behaviors?**

<i>Kind and respectful behaviors</i>	Never	Rarely	Some-times	Often	Always	Don't know
Kindness towards peers						
Kindness towards teachers and staff						
Respect towards peers						
Respect towards teachers and staff						

What proportion of students do you think exhibit kind and respectful behaviors at school?*Select one*

- ☐ 0-20%
- ☐ 21-40%
- ☐ 41-60%
- ☐ 61-80%
- ☐ 81-100%

<i>Unkind and disrespectful behavior</i>	Never	Rarely	Some-times	Often	Always	Don't know
Verbal aggression						
Physical aggression						

What proportion of students do you think exhibit unkind and disrespectful behaviors at school?*Select one*

- ☐ 0-20%
- ☐ 21-40%
- ☐ 41-60%
- ☐ 61-80%
- ☐ 81-100%

{ASK ALL} Rules**How often do you think students exhibit these behaviors?**

<i>Following rules</i>	Never	Rarely	Some-times	Often	Always	Don't know
Following rules and instructions in the classroom						
Following rules						

outside of the classroom						
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What proportion of students do you think follow rules at school?

Select one

- ☐ 0-20%
- ☐ 21-40%
- ☐ 41-60%
- ☐ 61-80%
- ☐ 81-100%

<i>Not following rules</i>	Never	Rarely	Some-times	Often	Always	Don't know
Not following classroom rules						
Cheating on assignments and tests						
Damaging school property						
Breaking rules to a significant extent that warrants parental involvement						

What proportion of students do you think do not follow rules at school?

Select one

- ☐ 0-20%
- ☐ 21-40%
- ☐ 41-60%
- ☐ 61-80%
- ☐ 81-100%

{ASK ALL} Academic Behaviour

How often do you think students exhibit these behaviors?

<i>Readiness to learn</i>	Never	Rarely	Some-times	Often	Always	Don't know
Arriving to school on time						
Maintaining a clean and organized school environment						
Showing readiness to learn (e.g. quiet and attentive, having necessary materials ready, seated and facing the teacher).						

What proportion of students do you think exhibit readiness to learn?

Select one

- ☐ 0-20%

- 21-40%
- 41-60%
- 61-80%
- 81-100%

<i>Disruptive work habits</i>	Never	Rarely	Some- times	Often	Always	Don't know
Disrupting and distracting self						
Disrupting and distracting others						

What proportion of students do you think exhibit disruptive work habits at school?

Select one

- 0-20%
- 21-40%
- 41-60%
- 61-80%
- 81-100%

{ASK ALL} Engagement

During your classroom check-ins, how often do you think students exhibit these behaviors?

<i>Engagement</i>	Never	Rarely	Some- times	Often	Always	Don't know
Participating in discussions and answering questions in class						
Engaging in class activities and tasks without prompts from the teacher						
Collaborating with peers in group work (e.g. taking turns, sharing materials, working respectfully).						

What proportion of students do you think demonstrate high engagement at school?

Select one

- 0-20%
- 21-40%
- 41-60%
- 61-80%
- 81-100%

{ASK ALL} Collaboration

During your classroom visits, how often do you think students exhibit these behaviors?

<i>Fostering collaboration and teamwork</i>	Never	Rarely	Some- times	Often	Always	Don't know
Working well with others						

Supporting peers academically						
Encouraging classmates by offering positive reinforcement and motivation						
Resolving conflicts constructively and calmly						

What proportion of students do you think foster collaboration and teamwork at school?

Select one

- ☐ 0-20%
- ☐ 21-40%
- ☐ 41-60%
- ☐ 61-80%
- ☐ 81-100%

{ASK ALL} LearningDifferences

What challenges have you faced in managing students with learning differences and have you used Bankee to address them? Please provide examples and explanations. [OPEN TEXT]

{POST ONLY} Overall

Overall, how has Bankee changed students' behavior? [OPENTEXT]

{ASK ALL} FeedbackScale

Please state if you agree / disagree with the statements below about this survey.

	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree
The length of the survey was appropriate					
The language used in the survey was understandable					
The flow of the survey makes sense					
The questions are contextually relevant to					

my school and students					
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{ASK ALL} FeedbackText

Could you please provide further details on the above and any additional feedback you have on the survey? : [OPENTEXT]

Appendix F: Excluded Items from the Surveys

Table F1. Teachers' Financial Literacy & Behaviour Survey: Original and Final Survey Item Comparisons

Original Domain & Item (Old Survey)	Final Domain & Item (New Survey)	Change Type
Financial Topics	Financial Topics	
Budgeting (topic)	Budgeting (i.e. <u>Managing short-term income and spending</u>)	Retained and reworded for more clarity
Charity/Giving		Removed
Financial Planning	Financial Planning (i.e. <u>Setting long-term financial goals</u>)	Retained and reworded for more clarity
Pricing	Pricing	Retained
Saving		Removed
Spending	Spending	Retained
Value of Money	Value of Money	Retained
Financial Terms	Financial Terms	
Paychecks/Salary		Removed
Bonuses	Bonuses	Retained
Fines	Fines	Retained
Balance	Balance	Retained
Transaction		Removed
Account Number		Moved to 'Beyond Bankee'
Deposit/Withdrawal		Removed
Value of Money Concepts	Understanding Value of Money	Retained & Reworded
Money has value	Money has value	Retained
Money enables buying/selling	Money enables buying/selling	Retained
Where day-to-day money comes from	Where day-to-day money comes from	Retained

Choices when spending money		Removed
Higher quality items may have higher prices		Removed
Wants vs. needs		Removed
Financial responsibilities come with obligations		Removed
Pocket money vs. Bankoz value		Removed
Understanding of Financial Terminologies Beyond Those Introduced by Bankee	Understanding of Financial Terminologies Beyond Those Introduced by Bankee	Retained
Budget	Budget	Retained
Staying safe when buying online	Staying safe when buying online	Retained
Bank statements	Bank statements	Retained
Debit cards	Debit cards	Retained
Savings account	Savings account	Retained
Current account	Current account	Retained
	Account Number	Moved to this section from 'Financial Terms' Table
Scenario – Budgeting on a Field Trip	Field trip budgeting scenario	Retained and moved to be above the table of BeyondBankee 1
Differences in Financial Literacy Between Students		Retained as descriptive and reworded for clarity
Students' Attitudes Towards Financial Behavior	Students' Attitudes Towards Financial Behavior	Retained
Keen to develop good habits	Keen to develop good habits	Retained
Confident in spending decisions	Confident in spending decisions	Retained
Anxious when making decisions		Removed
Think saving is important	Think saving is important	Retained
Comfortable asking for advice	Comfortable asking for advice	Retained
Proud when managing money	Proud when managing money	Retained
Ability to Make Financial Decisions	Ability to Make Financial Decisions	Retained
Save pocket money	Save pocket money	Retained

Donate/help others	Donate/help others	Retained
Start thinking about what to do with money	Start thinking about what to do with money	Retained and moved from section and table on Taking Responsibility and Goal Setting
Take responsibility for saving	Take responsibility for saving	Retained and moved from section and table on Taking Responsibility and Goal Setting
Taking Responsibility and Setting Goals		Removed
Privacy and Personal Financial Information	Privacy and Personal Financial Information	Retained
Not sharing account number/password	Not sharing account number/password	Retained
Keeping track of account balance	Keeping track of account balance	Retained
Planning spending based on finances	Planning spending based on finances	Retained
Explaining spending choices	Explaining spending choices	Retained
Managing money	Managing money	Retained
Checking change after buying	Checking change after buying	Retained
Connecting Bankoz to Real-Life Financial Habits	Connecting Bankoz to Real-Life Financial Habits	
Motivated to save for large items	Motivated to save for large items	Retained but moved to section on Ability to Make Financial Decisions
Compare prices before buying	Compare prices before buying	Removed
Ask for advice before spending	Ask for advice before spending	Removed
Apply Bankoz habits to real money	Apply Bankoz habits to real money	Retained but moved to be the first question in this section
Plan pocket money spending	Plan pocket money spending	Retained but moved to be the second question in this section
Perceived change in behaviour from Bankee	Perceived change in behaviour from Bankee	Retained to be the last question in the section

Table F2. Teachers' and Principals' Classroom Behaviour Survey: Original and Final Survey Item Comparisons

Original Domain & Item (Old Survey)	Final Domain & Item (New Survey)	Change Type
Kind and Respectful Behaviour/Attitudes	Kind and Respectful Behaviour/Attitudes	Retained
Kindness towards peers		Removed
Kindness towards teachers and staff	Kindness towards teachers and staff	Retained
Respect towards peers	Respect towards peers	Retained
Respect towards teachers and staff	Respect towards teachers and staff	Retained
Following Rules	Following Rules and Readiness to Learn	Reworded Domain
Following rules and instructions in the classroom	Following rules and instructions in the classroom	Retained
Following rules outside of the classroom	Following rules outside of the classroom	Retained
Engaging in classwork (e.g., completing assignments on time)		Removed
Not Following Rules – Not following classroom instructions	Not following classroom instructions	Retained and moved to “Disruptive and aggressive behaviour” domain/table
Verbal aggression		Moved to “disruptive and aggressive behaviour” domain
Physical aggression		Removed
	Significant Rule Breaking	New domain/table created
Not Following Rules – Cheating on assignments/tests	Cheating on assignments/tests	Retained but moved to a separate table on Significant Rule Breaking
Not Following Rules – Damaging school property	Damaging school property	Retained but moved to a separate table on Significant Rule Breaking
Readiness to Learn		Removed section and merged with Following Rules
Focusing in class	Focusing in class	Retained and moved to table of ‘Following Rules and Readiness to Learn’

Ability to self-regulate behaviours	Ability to self-regulate behaviours	Retained and moved to table of 'Following Rules and Readiness to Learn'
Setting academic goals for themselves	Setting academic goals for themselves	Retained and moved to table of 'Following Rules and Readiness to Learn'
Maintaining a clean and organized classroom environment	Maintaining a clean and organized classroom environment	Retained and moved to table of 'Following Rules and Readiness to Learn'
Showing readiness to learn (quiet, attentive, prepared)	Showing readiness to learn (quiet, attentive, prepared)	Retained and moved to table of 'Following Rules and Readiness to Learn'
Resolving conflicts constructively	Resolving conflicts constructively	Retained and moved to this table/domain from Collaborative Behaviours table
Disruptive work habits	Disruptive and aggressive behaviour	Retained but reworded domain name and table
	Not following classroom instructions	Moved from Following Rules Table
Disruptive Work Habits – Disrupting/distracting self	Disrupting/distracting self	Retained
Disruptive Work Habits – Disrupting/distracting others	Disrupting/distracting others	Retained
	Verbal Aggression	Moved from unruly behaviours table
Engagement and Collaboration	Engagement	Reworded
Engagement – Participating in discussions	Participating in discussions and answering questions	Retained
Engagement – Engaging in class activities without prompts	Engaging in activities without prompts	Retained
Collaboration – Working well with others		Removed
Collaboration – collaborating with peers in group work	Collaborating with peers in group work	Retained
Collaboration – Supporting peers academically		Removed
Collaboration – Encouraging classmates		Removed
Collaboration – Resolving conflicts constructively	Resolving conflicts constructively	Retained and moved to 'Following Rules and Readiness to Learn' Table

Learning Differences – Managing behaviour of students with learning differences (open text)	Same (open text)	Retained
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Appendix G: Sample Size for Future Evaluation Using the Survey developed by NatCen

Sample size options for detecting a small effect size (Cohen's $d = 0.2$) of behaviour score at endline with a power of 80% and probability of 5%:

Option 1: 20 schools and 10 teachers per school, assuming at least 3 shared pupil groups across teachers each school.

Option 2: 50 schools and 5 teachers per school, assuming at least 2 shared pupil groups across teachers per school.

A note on shared pupil groups: The study's power will be enhanced with a greater number of shared pupil groups among teachers per school (e.g., 5 compared to 3 shared pupil groups in option 1). Specifically, if teachers within schools are less likely to share classes, the study will be better powered and more likely to detect a true effect. This means that fewer schools and fewer teachers need to be recruited. Conversely, if there is a high level of class overlap among teachers within schools, the study will lose its power. As such, more schools and more teachers need to be recruited.

In order to ensure representativeness across the full population of 88 schools participating in Bankee this year, the sample should be drawn using a **stratified sampling approach**. This means that schools are selected proportionately according to key characteristics of the Bankee population, namely whether they are old or new participants, school type (girls' public, boys' public, private), and governorate (for public schools).

- **Old vs. New schools:** 60.2% of the sample should consist of old schools and 39.8% of new schools. For example, if 50 schools were included in the evaluation, this would translate into 30 old schools and 20 new schools.
- **School type:** 21.6% of the sample should be private schools, 36.4% girls' public schools, and 42.0% boys' public schools.
- **Governorate distribution (public schools only):**
 - Assima: 19.3%
 - Hawalli: 13.6%
 - Mubarak Al Kabeer: 12.5%
 - Farwaniya: 20.5%
 - Jahra: 7.9%
 - Ahmadi: 4.6%

Applying this stratification will ensure that the evaluation sample accurately reflects the diversity of the Bankee school population, and that findings are generalisable across different types of schools and geographic areas. The exact number of schools selected within each stratum will depend on the overall sample size option chosen (e.g., 20 vs. 50 schools), but the proportions above should be maintained to preserve representativeness.