



2021 Cha-Ching Review: Asia

Independent review by Dr Adele Atkinson



Acknowledgements

The author would like to thank Marc Fancy, Executive Director, and Emma Burrows, Director, both Prudence Foundation, for their commitment to open and fair review.

The implementation and evaluation of the Cha-Ching curriculum would not have been possible without the foresight of the Prudence Foundation and the ongoing enthusiasm, effort and commitment of Junior Achievement and thousands of students, teachers and schools in Asia and around the world. Junior Achievement across Asia has also been instrumental in the research by providing data and supporting materials.

This report was written by Dr Adele Atkinson, a senior independent consultant specialising in the preparation of high-quality research and policy guidance around financial literacy, financial inclusion and financial resilience.

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Introduction

Prudential plc, through its charitable arm, Prudence Foundation, has developed various financial education tools aimed at entertaining and informing children and youth. These are built around 18 high energy cartoon music videos lasting around 3 minutes each.¹

Reviewer observations

The Cha-Ching music video characters illustrate that everyone can learn new skills or adapt their behaviours where necessary to achieve positive outcomes.

Each of the characters has strongly identifiable attitudes, behaviours, habits, skills and preferences. They are all likeable, and they each add value in the stories. As every character manages to improve their money management styles irrespective of their initial attitudes and skills, students see that everyone who takes the time to learn and understand can be a successful money manager. This is a very powerful message, put across in an appealing and entertaining way.

Building on the success of this approach, in 2016, Prudence Foundation partnered with JA Asia Pacific to develop a financial education package for schools. The resulting 'Cha-Ching curriculum' offers teachers structured lesson plans built around 6 of the cartoon music videos and a '360 degrees' support package. The support package provides teachers and students with access to additional online materials via websites, video streaming, and social media. The curriculum materials also include take-home activities, games and comics to engage students and their parents and family members.

¹ [Cha-Ching Financial Literacy for Kids | Home \(cha-ching.com\)](https://cha-ching.com)

Reviewer observations

The breadth of materials is impressive. Teachers have a fully comprehensive teaching package, designed to make sure that they apply good practices in each lesson. Students have the opportunity to further develop their skills through a variety of activities at home and access to additional resources, including more videos. The materials include various questions designed to encourage students to think about the topics in the lesson and model answers. This allows consistency in the overall teaching approach and helps to ensure that important elements of the lesson are not overlooked during the discussion.

The materials are clear and attractive and written in simple language that is appropriate for teachers from a range of disciplines and backgrounds. They encourage the teachers to prepare well for each lesson and learn the definitions of each of the key concepts.



The Cha-Ching curriculum contributes to national policies designed to improve financial literacy, and is endorsed by the Ministries of Education in each of the five participating countries.

Evaluation data has been collected on the progress of students using the Cha-Ching curriculum in schools across Indonesia, Malaysia, the Philippines, Thailand and Vietnam (Table 1). The full dataset includes information about the students, teachers, and schools. It also includes before and after tests of financial literacy for participants. This makes it possible to review the Cha-Ching curriculum, measuring outcomes and potential (short-term) impact and suggesting any fine-tuning that may be beneficial moving forward.

Table 1

Number of students included in the evaluation

	2017	2018	2019	2020	Total
Indonesia	-	53,976	6,006	12,094	72,076
Malaysia	12,967	17,420	6,535	6,303	43,225
Philippines	15,002	36,043	6,000	5,856	62,901
Thailand	-	-	11,894	9,783	21,677
Vietnam	-	-	6,299	7,336	13,635
Total	27,969	107,439	36,734	41,372	213,514

Note: Throughout this study, data from Thailand reflects two waves of implementation started in 2019. The data have been split to reflect final implementation dates, so wave 1 is 2019 and wave 2 is 2020. However, the materials used were all for 2019.

What does Cha-Ching cover?

The Cha-Ching curriculum draws on good practices and international guidance, including the G20/OECD Core Competencies on Financial Literacy for Youth. It is organised around Earn, Save, Spend and Donate. The basic premise is that these four elements are choices that are necessary to reach goals.



EARN

Receive income for work or services



SAVE

Keep money now for later use so as to realise short-term goals (e.g. buy a candy) or long term goals (e.g. go to university)



SPEND

The use of money to buy things or services



DONATE

Give time, items and/or money away freely in order to help others

The teacher guide describes the curriculum as follows:

'Cha-Ching curriculum encompasses economics curriculum for students in primary 2 to 6. The programme emphasises economic and social studies content while providing a strong focus on finance, mathematics, planning and analytical skills. Students are encouraged to use divergent and critical thinking to make decisions on how they manage their money applying the four concepts, Earn, Save, Spend and Donate in their daily life which support positive attitudes as they explore and enhance their money-management skills.'

Teacher support for the curriculum materials and teacher training

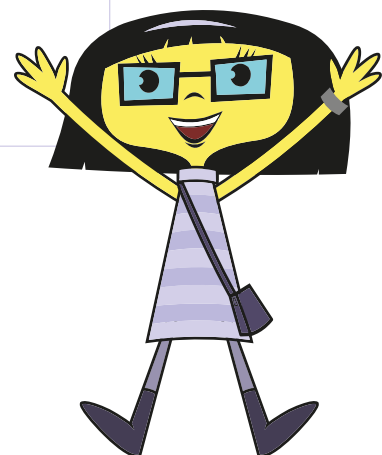
"Wonderful course, student was interested."

"Cha-ching curriculum should be taught by all teachers."

"Developed in the form of video is somewhat easier to understand."

"I totally agree that Cha-Ching curriculum is helpful to implement at schools."

"A meaningful and practical training session. We hope that the program will be implemented as soon as possible in elementary schools."



Reviewer observations

The curriculum incorporates elements of economics such as utility, scarcity and opportunity costs and aspects of **social studies** such as understanding how society functions and the role of charity in a child friendly way.

With a focus on **finance**, the topic allows teachers to cover basic **mathematics**, and the activities incorporate planning budgets and analysis of available options. The curriculum may also nudge teachers to think about their own financial situation.

The Cha-Ching curriculum is likely to appeal to subject teachers seeking new ways to help young people to learn about money matters.



Student Outcomes

Prudence Foundation follows good practices in evaluating the Cha-Ching curriculum. It was designed with monitoring and evaluation in place and uses a consistent method across countries and schools to ensure comparability. Data has been collected on the progress of students using the Cha-Ching curriculum in schools across five countries in Asia (Indonesia, Malaysia, the Philippines, Thailand and Vietnam). The data includes information about the students, teachers, and schools. Students take a short test before and after attending the 6 classes, and their responses are collected by the teacher. This makes it possible to analyse the outcomes and impact of Cha-Ching across schools, countries, and years and to create scores on financial knowledge, attitude and behaviour.²



² Knowledge score based on 3 questions in Figure 1: Besides spend what are the other options we can make with money; I want to buy a new model; Which is not a way to spend wisely. Attitude score based on 3 questions reported in Figure 2: To make this world a better place; Agrees money comes from hard work; Earning, saving, spending and donating is important. Behaviour score based on 4 questions in Figure 3: Save money to buy things they need; Gives money, time, etc. to the needy; Does not spend all, or quickly.

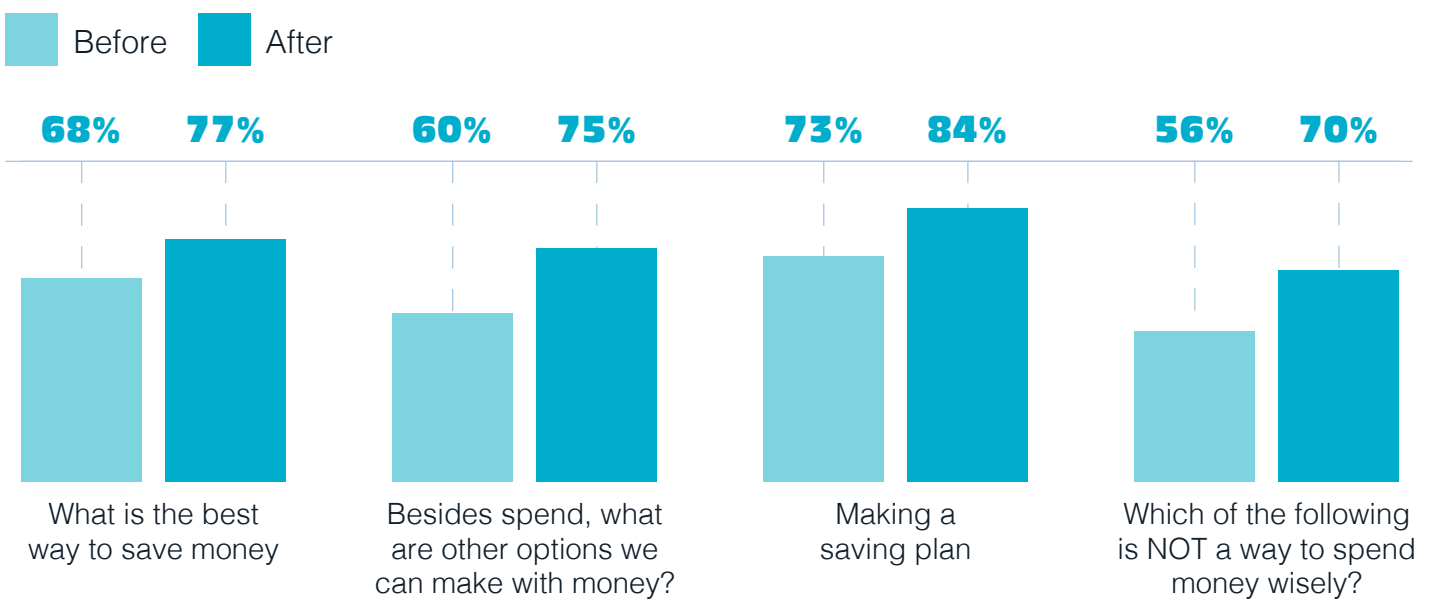
Student Knowledge

It has also been possible to create before and after scores for each student. Figure 1 shows students' knowledge before and after participating in the Cha-Ching curriculum.³ Before participating students were least likely to choose the correct option for spending wisely, and most likely to know that saving is the most appropriate way to buy something they cannot afford.

A larger proportion of students answered each of the questions correctly after participating in the curriculum, suggesting that they improved their understanding of these topics.

Figure 1

Financial knowledge before and after participating in Cha-Ching: Correct responses



Note: Data weighted to account for different sample sizes per year and per country.

³The grouping takes into account other measurement approaches, factor analyses and reliability tests.

Student Attitudes

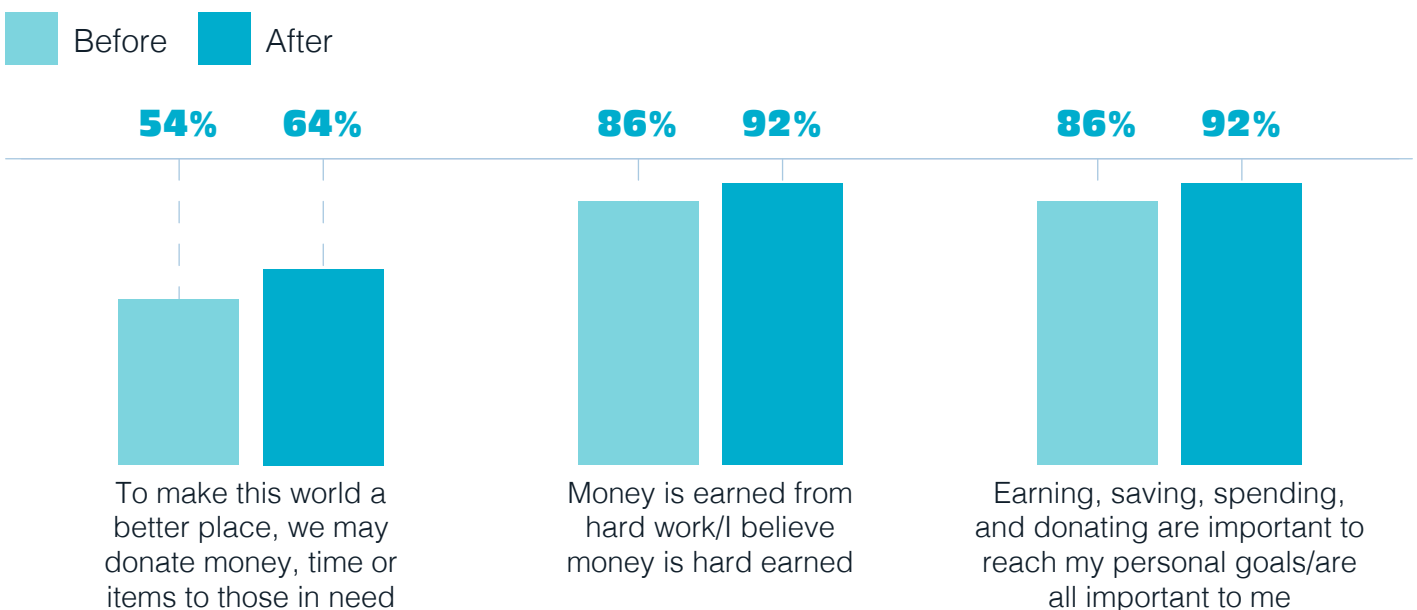
Several questions provide insights into the students' financial attitudes before and after participating in the Cha-Ching curriculum.

Figure 2 shows that most students had positive attitudes before participating, and the proportion increased by the end of the 6 lessons. Both before and after participating, students were least likely to agree that donating would make the world a better place, perhaps suggesting that this concept was less familiar to them.



Figure 2

Financial attitudes before and after participating in Cha-Ching: Positive responses



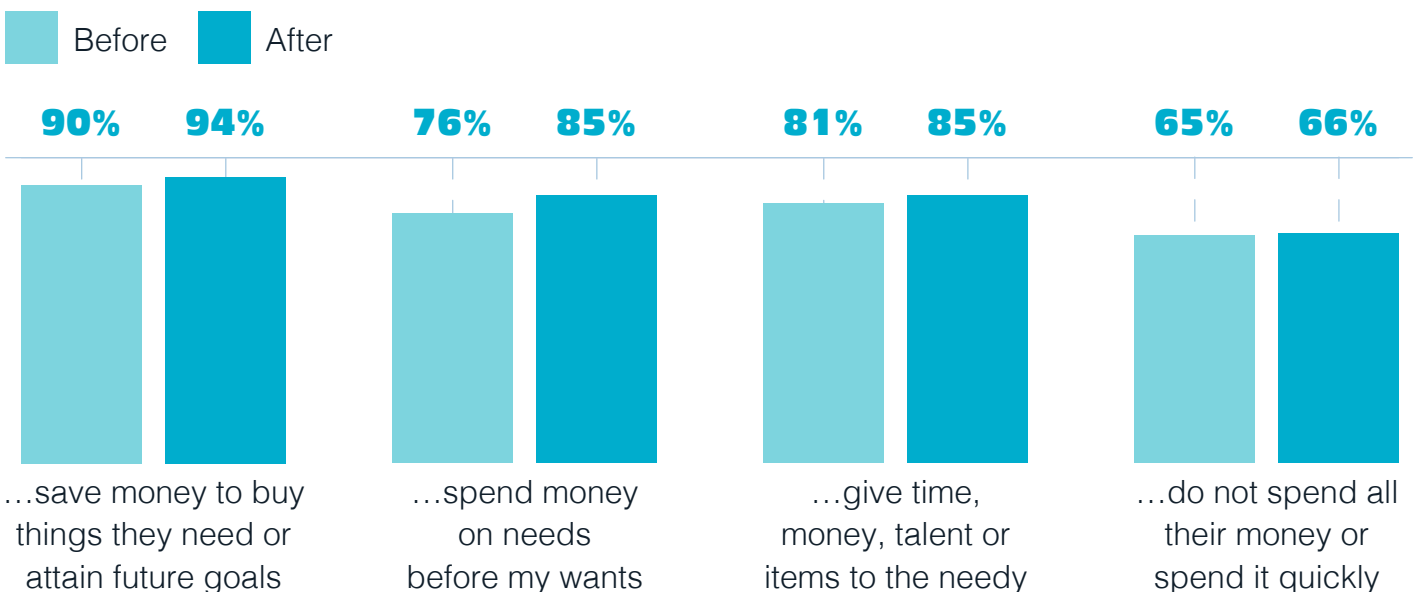
Student Behaviour

The questionnaire includes several questions relevant to student behaviour. Questionnaires can only ever give an approximate idea of behaviour, as they record people’s own report rather than independent observation. Additionally, there are only a few financial behaviours that students are likely to exhibit, as they are not yet responsible for a wide range of financial decisions. Nevertheless, with such a large dataset the responses provide valuable insights.

Figure 3 shows that many students reported behaving in a financially responsible way even before participating in the Cha-Ching curriculum. 90% of students said that they save money to buy things they need or for the future even before participating; although only 65% indicated that they could delay spending all their money. After participating, there was a small increase in students reporting positive behaviours. In particular, a further 9% of students (more than 19,000 participants) reported spending on needs before wants, an important element of the curriculum.

Figure 3

Financial behaviour before and after participating in Cha-Ching: Positive responses



Note: The responses are reversed before analysis if necessary, to indicate positive behaviours.

Teacher support for the content

“Dare to encourage them to be able to live productively and be part of economic change.”

“Good activities for pupils to manage money wisely.”

“Seemingly ideal to implement the careful saving and spending awareness.”

“Cha-ching curriculum are very interesting topics!”

“The program is timely in order to teach young generations on financial literacy.”

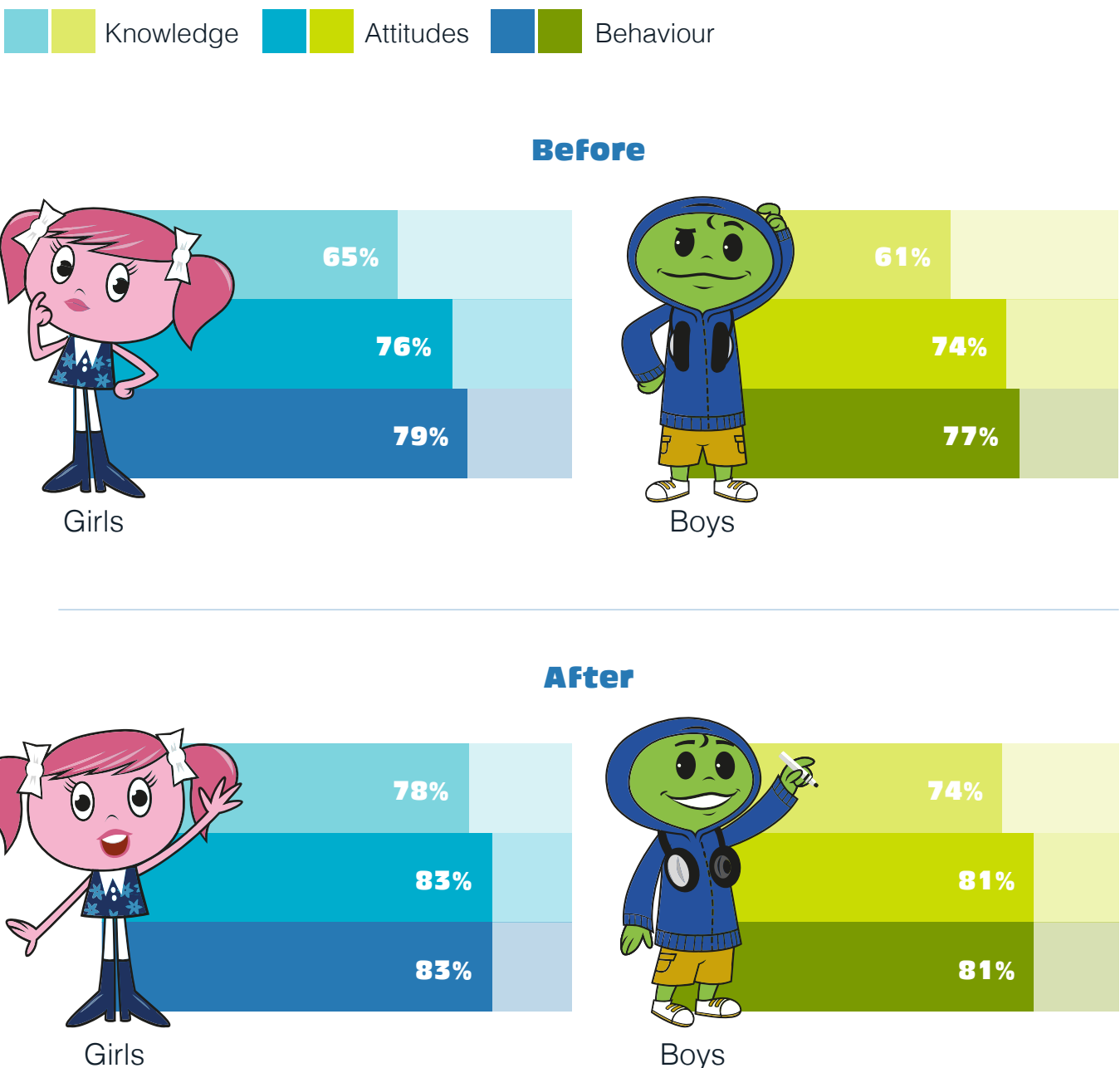
“Good topic for pupils to learn.”



Figure 4 shows improvements in student’s scores for knowledge, attitude and behaviour, by gender. It shows that boys had slightly lower scores than girls before and after participating, but that both girls and boys achieved a noticeable improvement, particularly in terms of knowledge.

Figure 4

Percentage of boys and girls getting full marks before and after participating in Cha-Ching



Note: Average percentage of full marks (Max 3 for knowledge and attitudes, 4 for behaviour).

Evidence of Impact

In-depth analysis of the data from Asia makes it clear that students are learning more about financial matters and improving their financial attitudes and financial behaviour more than would be expected if they had not participated in the Cha-Ching curriculum.

Reviewer observations

The findings are impressive. Analysis shows that students achieve higher scores on knowledge, attitude, and behaviour after participating in Cha-Ching than they did before. Comparisons with other research suggest that the impact on financial knowledge is higher than is typical for developed economies. The impact on attitudes and behaviour is also positive.

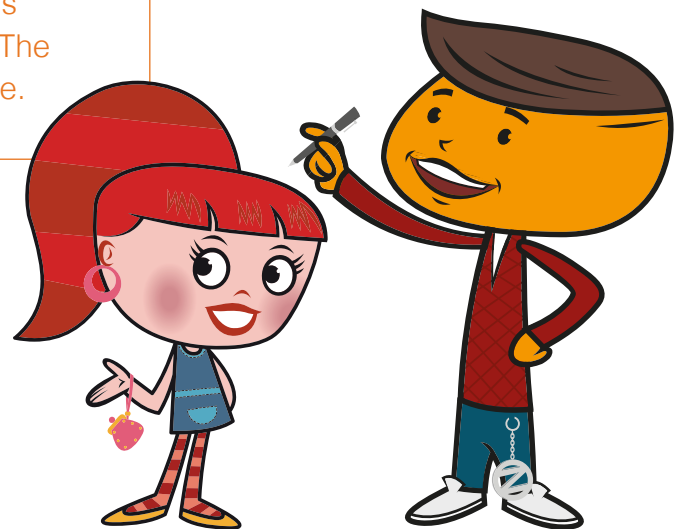


Figure 5

Measuring the impact of participating in the Cha-Ching curriculum in Asia: Effect sizes

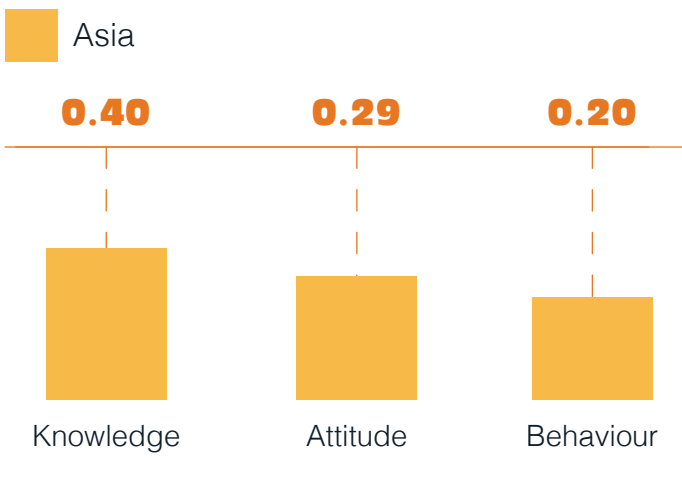


Figure 5 reports the size of the impact of Cha-Ching on students using a measure that is often used to discuss the impact of teaching because it can be compared across different curricula. It is called the ‘effect size’.⁴ The effect size of Cha-Ching on financial knowledge in Asia is 0.4 SD.

A recent report looked at the impact of many different financial education curricula around the world, and found that *‘effect sizes on financial knowledge are significantly larger in developed economies (0.39 SD) relative to developing economies (0.14 SD)’*.⁵ This means that the size of the effect that Cha-Ching is having on students’ financial knowledge is slightly larger than the average in developed economies. As anticipated, the effect size on attitudes and behaviour are lower, but still indicate an impact.

⁴ The effect size is measured in terms of standard deviations or SD.

⁵ Kaiser and Menkhoff (2020) Financial education in schools: A meta-analysis of experimental studies.

Teacher feedback on the positive impact

“This programme created awareness on Earn, Save, Spend and Donate. Donate was something new for the Year 5 Pupils. They realised that we need to help the needy.”

“Cha-ching curriculum is very effective on pupils' development.”

“This programme is one of the best experience that my students have gained. Thanks!”

“It's good for my students' knowledge.”

“With the introduction of Cha-Ching [...] children know how difficult it is to get money [and] are eager to save.”

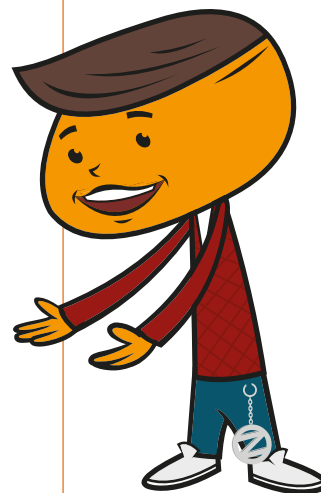


Figure 6 explores the impact further by looking at the factors that are associated with students' scores after participating. It shows significant predictors of final scores, comparing previous years with 2019-20, and controlling for age, gender and initial scores.

The analysis shows that, after taking into account the year of implementation, girls achieve higher outcomes than boys of the same age with the same score before participating.

The impact of age varies. Controlling for other factors, older students are more likely to have higher knowledge scores after participating in the Cha-Ching curriculum but less likely to have higher attitude scores. Changes in behaviour scores are not significantly associated with age once other factors are taken into account. This means that on average, older students learn more than younger students, other things being equal, but do not improve their attitude as much as younger students do.

Figure 6

Variations in knowledge, attitudes and behaviour test scores after participating in Cha-Ching

Knowledge	High knowledge scores	Low knowledge scores
	<ul style="list-style-type: none"> - Students participating in 2019-20 - Older students - Students with higher before test on knowledge, attitude and/or behaviour - Girls 	<ul style="list-style-type: none"> - Students participating prior to 2019-20 - Younger students - Students with lower before test on knowledge, attitude and/or behaviour - Boys
Attitude	High attitude scores	Low attitude scores
	<ul style="list-style-type: none"> - Students participating in 2019-20 - Younger students - Students with higher before test on knowledge, attitude and/or behaviour - Girls 	<ul style="list-style-type: none"> - Students participating prior to 2019-20 - Older students - Students with lower before test on knowledge, attitude and/or behaviour - Boys
Behaviour	High behaviour scores	Low behaviour scores
	<ul style="list-style-type: none"> - Students participating prior to 2019-20 - Students with higher before test on knowledge, attitude and/or behaviour - Girls 	<ul style="list-style-type: none"> - Students participating in 2019-20 - Students with lower before test on knowledge, attitude and/or behaviour - Boys

Note: When there is no mention of year of implementation, age, gender or before-test scores, there were no significant differences in outcomes by these factors.

Significant at 0.01. Adjusted R² knowledge 0.13; attitude 0.09; behaviour 0.14.



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After five years of implementing the Cha-Ching curriculum in Asia, we are delighted that the findings from Dr Atkinson's report confirm that Prudence Foundation is having a positive impact on the lives of hundreds of thousands of young people across Asia.

Our Cha-Ching curriculum is providing teachers with entertaining videos, practical resources and a wealth of professional guidance, and the results for children's financial education are impressive. As Dr Atkinson observes *'Students [watching the videos and who take the curriculum] realise that everyone who takes the time to learn and understand can be a successful money manager.'* And her analysis certainly confirms this view. After participating in 6 Cha-Ching lessons, students know more, improve their behaviour and have more positive attitudes towards financial matters than they did before.

A handwritten signature in black ink, appearing to read 'Marc Fancy'.

Marc Fancy
Executive Director
Prudence Foundation

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