



Print ISSN: 1738-3110 / Online ISSN 2093-7717

JDS website: <http://www.jds.or.kr/><http://dx.doi.org/10.15722/jds.21.09.202309.43>

Video Learning Enhances Financial Literacy: A Systematic Review Analysis of the Impact on Video Content Distribution

Yin Yin KHOO¹, Mohamad Rohieszan RAMDAN², Rohaila YUSOF³, Chooi Yi WEI⁴

Received: April 28, 2023. Revised: August 04, 2023. Accepted: September 05, 2023.

Abstract

Purpose: This study aims to examine the demographic similarities and differences in objectives, methodology, and findings of previous studies in the context of gaining financial literacy using videos. This study employs a systematic review design. **Research design, data and methodology:** Based on the content analysis method, 15 articles were chosen from Scopus and Science Direct during 2015–2020. After formulating the research questions, the paper identification process, screening, eligibility, and quality appraisal are discussed in the methodology. The keywords for the advanced search included "Financial literacy," "Financial Education," and "Video". **Results:** The results of this study indicate the effectiveness of learning financial literacy using videos. Significant results were obtained when students interacted with the video content distribution. The findings of this study provide an overview and lead to a better understanding of the use of video in financial literacy. **Conclusions:** This study is important as a guide for educators in future research and practice planning. A systematic review on this topic is the research gap. Video learning was active learning that involved student-centered activities that help students engage with financial literacy. By conducting a systematic review, researchers and readers may also understand how extending an individual's financial literacy may change after financial education.

Keywords: Video Learning, Financial Literacy, Systematic Review Analysis, Video Content Distribution

JEL Classification Code: M30, M31, M39

1. Introduction

Financial literacy is an important knowledge that is needed to manage money effectively. According to the Organisation for Economic Co-operation and Development (OECD), elements in financial decision-making may affect

all areas of our lives. The OECD stated that financial literacy is the knowledge and skill required to make an effective financial decision (Kartini et al., 2021). The young generation has faced global financial problems (Sharif et al., 2020). The best method to promote financial literacy and awareness among the younger generation is to incorporate it into the school curriculum. Many countries have enforced

* This research receive grant from the Fundamental Research Grant Scheme (FRGS/1/2019/SS08/ UPSI/02/03) awarded by the Ministry of Education, Malaysia. The authors would like to extend their gratitude to Fundamental Research Grant Scheme, Ministry of Education Malaysia, to provide the grant and Universiti Pendidikan Sultan Idris (UPSI), which helped manage the grant.

1 First Author or Corresponding Author. Professor, Faculty of Management and Economics, Universiti Pendidikan Sultan Idris, Perak, Malaysia. Email: khoo@fpe.upsi.edu.my

2 Second Author. Senior Lecturer, Faculty of Management and Economics, Universiti Pendidikan Sultan Idris, Perak, Malaysia. Email: rohieszan@fpe.upsi.edu.my

3 Third Author. Associate Professor, Faculty of Management and Economics, Universiti Pendidikan Sultan Idris, Perak, Malaysia. Email: rohaila@fpe.upsi.edu.my

4 Fourth Author. Senior Lecturer, Faculty of Business and Finance, Universiti Tunku Abdul Rahman, Perak, Malaysia. Email: weicy@utar.edu.my

© Copyright: The Author(s)

This is an Open Access article distributed under the terms of the Creative Commons Attribution Non-Commercial License (<http://creativecommons.org/licenses/by-nc/4.0/>) which permits unrestricted noncommercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

financial education to enhance financial literacy, especially in the younger generation (Salas-Velasco et al., 2020). Financial literacy is perceived as a necessary life skill and an important basis for society's economic and financial stability in modern life (Lusardi, 2019). Younger adults require opportunities to explore financial literacy to understand the basics through the education system. Students need to develop financial literacy to form effective and accountable financial choices in their daily lives after they become adults. Financial competencies include financial knowledge, skills, understanding, behaviours, attitudes, and managing money effectively (Kartini et al., 2021). Raising this awareness is vital in empowering students to enhance their well-being in the future. Therefore, individuals making sound financial decisions in daily life can fulfil their current and future financial needs. People from all walks of life should learn to manage their expenses and save, borrow responsibly, invest wisely, and be consistent with their financial goals and retirement planning (Mahdzan et al., 2020).

Researchers have postulated that financial literacy is crucial in making financial decisions because it denotes students' understanding of financial concepts (Lusardi, 2019). Meanwhile, Lusardi (2019) also defined financial literacy as "the ability to use knowledge and skills to manage financial resources effectively for a lifetime of financial well-being." Swiecka Yesildag et al. (2020) posited that financial literacy refers to skills and knowledge related to money management. It included the ability to managing a credit card, balancing a check book, buying insurance, preparing a budget, and applying for a loan. However, approximately 20% of high school students in the United States are not financially literate. This indicator was proven as most of them did not exceed the baseline level of financial proficiency (Lusardi & Mitchell, 2011), similar in the context of financial ability in Malaysia. According to a survey of the Mahdzan et al. (2020), Malaysians need to enhance their financial knowledge, saving and budgeting, readiness for unexpected life events, planning for retirement, and economics education.

Digital learning is an effective learning method in the 21st century, especially for subjects related to daily life, such as financial literacy and knowledge. Khoo and Fitzgerald (2017) reported that students who learned financial literacy using digital tools such as smartphones outperformed students who studied in the face-to-face lecture group context. The interaction between students and a digital tool is significant in various areas. However, conducting in-depth studies on financial literacy is essential.

Digital learning is the current learning trend. Video has received much attention because it has always been claimed as an audio visual learning medium that offers real-world examples with rich contextual details (Isik & Yilmaz, 2012;

Nicolaou et al., 2019). Video also has become an important element in blended and online learning (Polat, 2020) because it can create a modern digital educational environment (Grunis et al., 2021). Utilizing interactive video as a pedagogical tool is a fruitful way of engaging students in cooperative learning. It can also foster thinking about the current issues related to the real world through the discussions conducted (Higgins & Moeed, 2017). Many educators require technology, such as videos, in their teaching (Win, 2019). Previous studies on educational videos of effective culturally responsive teaching highlighted the best practices and provided the most straightforward way for educational institutions to address accomplishment gaps (Jordan, 2017; Fullam, 2017). Video-based learning can significantly improve the academic performance of students. Researchers believe that once students develop the video, they have reformulated their knowledge (Syaparuddin & Elihami, 2020). When presenting to the audience after producing a video, students apply the knowledge they learned interactively. Therefore, students can express their understanding of their financial literacy. They can also relate to their peers' opinions when developing videos. Many studies have focused on financial literacy and behaviour, even spending behaviour (Khalid & Ismail, 2019); however, it is interesting to learn about using videos to promote financial literacy.

Financial education through savings and investments is one way to change consumers' behaviour (Reswari et al., 2018). Nevertheless, financial literacy should be integrated into the curriculum with digital media assistance, such as videos. This is because video is popular nowadays, not only in marketing and entertainment but also in education.

In this paper, majority of the videos content distribution on the internet and provide detailed algorithms for privacy information extracting, hiding, and recovering (Li et al., 2010).

Additionally, the effectiveness of online learning has been revealed in past research (Zheng et al., 2020). The current study's research topic is using videos to teach financial literacy. It comprised 15 papers published in Scopus and Science Direct between 2015 and 2020. Hence, an in-depth systematic review of prior studies in terms of demographics, objectives, methodology, impact on video learning and research findings was conducted in the current study. Although some researchers have used videos to promote financial literacy, a systematic review paper on this topic was a research gap. Automatically, it has also become a scientific novelty in this field. Through a systematic review, researchers and readers may understand the extent to which an individual's financial literacy may change after financial education. Another contribution of this review is that it can bring attention to policymakers, educators, and the community. This study focuses on the similarities and

differences of objectives, methodology, and findings of previous studies in learning financial literacy using videos.

2. Promoting Financial Literacy with Digital Tool

The use of high-quality digital tools to deliver efficient financial literacy now heavily relies on the digitization because the commercial world nowadays relies on financial goods and services (Mavlutova et al., 2021). Findings showed that digital tools like videos, games, cartoons, movies, and other media can effectively improve financial literacy (Ferreira & Bisognin, 2020; Popovich et al., 2020; Amagir et al., 2019; Kuntze et al., 2019; Angel, 2018; Kalmi, 2017; Khoo & Fitzgerald, 2017; Lusardi et al., 2015). Among these tools, video is the most successful digital tool that can enhance financial literacy. Almost all the studies showed the effectiveness of digital tools in promoting financial literacy except Kalmi (2018). The findings of Kalmi (2018) showed that digital tool can enhance financial knowledge but not the financial behaviours. In other words, students understand the meaning of saving but did not practice it. This finding (Kalmi, 2018) is in contrast with several studies (Popovich et al., 2020; Lusardi et al., 2015) which students intention and behaviour will change after using the digital tools. However, Lursadi et al. (2007) showed that through some digital tools such as, video narratives, written narratives, and information brochures on online platforms, specifically enhance financial literacy, financial decision making, and risk diversification.

3. Method

This study adopted the content analysis method to review research papers using videos to teach financial literacy during 2015–2020. The researcher needs to determine the function of a systematic review and formulate review questions before analysing. A systematic review guideline was adopted from Zawacki-Richer et al. (2020). The paper identification process, screening, eligibility, and quality appraisal are discussed in this section.

3.1. Formulated the Research Question

The formulation of the review question is the first step in the review process. The questions formed can lead readers to understand the pedagogical importance of enhancing financial literacy. A pluralistic approach that allows all types of research design is applied. In other words, various studies were included. The selected papers included both quantitative and qualitative research. Hence, the research questions addressed in this study were formulated as follows:

1. What were the demographics of the selected studies during 2015–2020?
2. What were the objectives of the selected studies during 2015–2020?
3. What research methodologies were employed in selected studies?
4. What was the impact on video content distribution?

3.2. Coding Scheme

The coding scheme was developed to answer the four research questions. The first question was related to demographics in video learning enhancing financial literacy, and the reviewed category included research location and sample. The second research question included examining the objectives of the selected studies. Few categories, such as research design and iteration duration, were formed to answer the third research question. Achievement, learning engagement, attitude, behaviour, thinking skills, and others were considered to explore the last research question.

Research location

The research location refers to the country in which the selected review took place. It can provide an overview to readers who want to research in the future.

Research sample

The research sample was divided into a few subcategories: high school students, college students, undergraduates (university students), and the public.

Objectives

The selected review papers referred to the effectiveness of using digital media, especially videos. They were based on the efficacy of using videos as a medium to promote financial literacy.

Research design

The research design was coded as follows: quantitative, qualitative, and mixed. Quantitative method refers to experimental study, quasi-experimental study, a survey that employed structural equation modelling, ANOVA, descriptive mean or frequency, ordinary least squares (OLS) regression, and other analyses. The qualitative method included case studies, narratives, and others.

Iteration duration

Iteration duration involved the extent to which the selected reviews conducted the research. Thus, the duration may have a significant difference between days and months.

Measured research findings

The measured research findings included a few variables attitude, behaviour, financial literacy, and financial awareness. Attitude refers to the attitude changed in financial literacy. Behaviours also mean saving or spending

behaviour. Variables that were not far into these few subcategories were classified as others.

3.3. Paper Identification Process

First, all the papers were identified by searching keywords, synonyms, and related terms. An advanced searching technique based on the Boolean operator was employed on two databases (Scopus and Science Direct). These two databases were selected based on being comprehensive sources for more than 5000 publishers. They are leading databases in a systematic review and provide an advanced search function. Scopus and Science Direct have also published high-quality multidisciplinary papers. Second, keywords were identified based on the research questions (Okoli, 2015). The main keywords for the advanced search included "Financial literacy," or "Financial Education," and "Video". These three words were selected based on financial literacy is similar with financial education and video was the most effective way among digital tools. Finally, 83 papers related to financial literacy using video in learning were selected: 58 from Scopus and 25 from Science Direct.

3.4. Screening

This stage involved screening all 83 papers based on their function in the database. Then, the journals were selected based on the following criteria: i) only journal articles; ii) papers written in English only; iii) related to education; iv) containing an empirical study with methodology; v) published from 2015 to 2020 (2015 was used as a starting benchmark because digital learning is new in the past five years), and vi) involving digital teaching or video teaching in financial literacy only. Next, two reviewers examine the papers individually by selecting titles and abstracts. Eventually, 63 papers were selected from the

two databases, including 47 from Scopus and 16 from Science Direct.

3.5. Eligibility

After screening, the papers had to be retrieved manually to ensure that they matched the criteria determined. The main author reread the titles and abstracts to ensure that the articles were consistent with the research questions. The researchers found one duplicated paper in Science Direct and Scopus; therefore, it was removed. Only articles on financial literacy using video and education were selected from 2015 to 2020. Thus, the exacted keywords that appeared in the search were "Financial literacy," "Financial Education," and "Video" and not "Investor," "Gambling," "Financial Therapy," "Video game," "PERSONAL LOAN," and LIMIT-TO DOCTYPE, "ar." Papers involving financial literacy training, gaming, financial therapy, or personal loans were omitted from the selection. Finally, only nine papers were selected from Scopus and eight from Science Direct. Thus, 17 papers were selected from two reliable indexed databases.

3.6. Quality Appraisal

Two experts were employed in this study to ensure quality assessment. First, the experts ranked the articles into three categories: high, moderate, and low (Petticrew & Robert, 2006). Articles categorized as high and moderate were selected for review. Next, the experts determined the articles using methodology as the selection criteria. They ranked ten articles as high and the remaining five as moderate. In other words, two papers were not chosen for this process. The remaining 15 articles were eligible for review. All steps of the methodology are summarized in Figure 1.

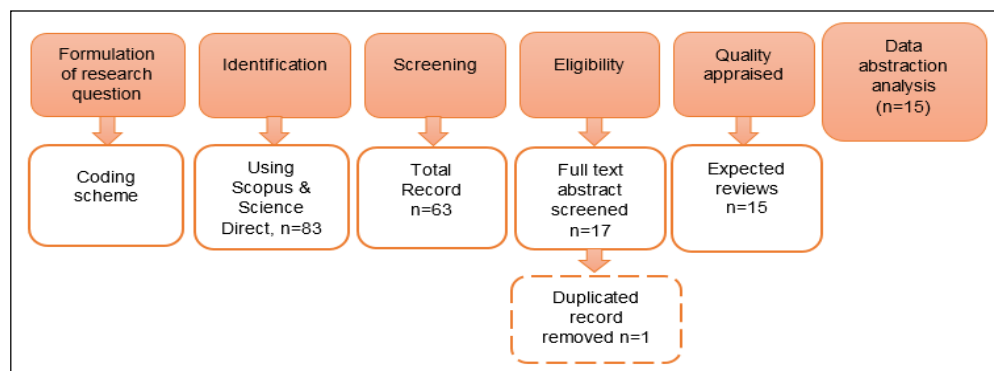


Figure 1: Steps of Systematic Review

3.7. Data Abstraction and Analysis

An integrative review was employed, and a qualitative technique was selected in this study. The selected 15 articles were read thoroughly, particularly the methodology, findings, and discussion. Data were abstracted based on the research questions. Although there were some similarities and differences between the 15 papers, the researchers generated themes and sub-themes for all articles. Three themes and two subthemes were developed during this process. They were employed to examine the development of the themes. Both experts approved the development of themes and subthemes.

4. Result

4.1. Demographic of the Selected Articles

Fifteen selected articles were based on the teaching and learning of financial literacy through video or digital learning. The majority of the articles chosen were established in the USA (four papers), two papers each from Hong Kong and India, and one from European countries, including Germany, Austria, the United Kingdom, Belgium, and the Netherlands. Additionally, there was a paper each from Brazil and Cambodia. Of the 15 papers, seven were newly published in 2020, followed by four in 2019, three in 2018, and one in 2015. Table I shows the research locations.

Table 1 shows that 33.33% of the samples were employed from university, 26.67% from high school, 26.67% from the public, and only one (6.67%) from college. However, one study used schoolteachers and high school students as samples (Compen et al., 2020). The studies employed students from high schools as samples (Zhu, 2020; Zhu, 2019; Amagir et al., 2019; Angel, 2018; Kalmi, 2018); whereas Ferreira and Bisognin (2020), Litterscheidt and Streich (2020); Kuntze et al. (2019); Lusardi et al. (2015). Only one study employed college students as a sample (Popovich et al., 2020). Carpena and Zia (2020) used the public as respondents; program participants; Hakizimfura et al. (2020) employed members of SACCO, and Crawford et al. (2018) employed garment factory workers. Table 1 shows the summarized results.

Table 1: The descriptive data for the results of demographics and the selected studies from 2015–2020

Demographics		n (%)
Research location	USA	4 (26.6)
	Hong Kong	2 (13.33)
	India	2 (13.33)
	Germany	1 (6.67)
	Austria	1 (6.67)

Demographics		n (%)
	United Kingdom	1 (6.67)
	Belgium	1 (6.67)
	Netherland	1 (6.67)
	Brazil	1 (6.67)
	Cambodia	1 (6.67)
Research Sample	High School	4 (26.67)
	College	1 (6.67)
	University	5 (33.33)
	Public	4 (26.67)
	Mixed teacher and students	1 (6.67)

4.2. Objectives Used

Nine of the 15 studies focused on the effectiveness of using video or digital media to enhance financial literacy (Popovich et al., 2020; Compen et al., 2020; Ferreira & Bisognin, 2020; Kuntze et al., 2019; Amagir et al., 2019; Crawford et al., 2018; Kalmi, 2018; Carpena et al., 2017; Lusardi et al., 2015). Zhu (2019) explored the impact of school financial education on students' results. However, research about an individual's economic behaviour and awareness were also carried out by Carpena and Zia (2020), Zhu (2020), and Angel (2018). The same author conducted the financial education program, parental socialization (Zhu, 2020), and parental financial socialization (Zhu, 2019) in Hong Kong. Litterscheidt and Streich (2020) examined the effect of financial education on delegating financial decision-making. The financial education system model has been tested in the study by Hakizimfura et al. (2020).

4.3. Methodology

Thirteen (86.87%) out of fifteen articles employed the quantitative research method (Carpena & Zia, 2020; Compen et al., 2020; Hakizimfura et al., 2020; Litterscheidt & Streich, 2020; Popovich et al., 2020; Zhu, 2020; Kuntze et al., 2019; Zhu, 2019; Angel, 2018; Crawford et al., 2018; Kalmi, 2018; Carpena et al., 2017; Lusardi et al., 2015), except two (13.33%) that employed qualitative method (Ferreira & Bisognin, 2020; Amagir et al., 2019). Table 2 presents the results.

Table 2: Descriptive data for the results of research method intervention

Research method intervention		n (%)
Research Method	Qualitative method	2 (13.33)
	Quantitative method	13 (86.87)
	Qualitative and quantitative method	0 (0)
	Intervention type	
Research design	Experimental design	8 (53.33)
	Quasi experimental design	2 (13.33)
	Contact analysis	1 (6.67)

Research method intervention		n (%)
	Design based research	1 (6.67)
	Others	3 (20.0)
Iteration	3 days	1
	3 weeks	1
	5 weeks	2
	6 weeks	1
	8 weeks	2
	10 weeks	2
	12 weeks	1
	13 months	1
	18 months	1
	Not mentioned	3

About 53.55% of the selected papers that involved quantitative research methods applied the experimental research design. Some papers did not mention the word empirical research directly, but the authors used the word intervention or pre-post practical, experimental research elements. The experimental design was employed to check the effectiveness of the teaching tool, such as videos on

financial literacy or financial education. According to Kirk (2013), an experimental design was performed based on the following purposes: 1) explore, 2) describe, 3) establish relationships, and 4) establish causality. Most review papers fulfilled criteria 1, 2, and 3. Two (13.33%) papers that used quasi-experiments were Crawford et al. (2018) and Kalmi (2018). The quasi-experimental design was similar to the experimental design, but the sample was not randomly selected. However, most studies used pre-post-tests to measure the effects of the intervention and compared the treatment and control group results. Descriptive and inferential statistics were used to analyse the data. However, Zhu (2019) and Zhu (2020) employed confirmatory factor analysis, and multivariate analysis was performed by Litterscheidt and Streich (2020).

There were only two studies that implemented qualitative research; content analysis (6.67%) was employed by Ferreira and Bisognin (2020), whereas design-based research (6.67%) was used in Amagir et al. (2019). An overview of the methodology is provided in Table 3.

Table 3: An overview of methodology of selected papers for systematic review

Author/year	Methodology		Research Sample			Source	
	Quantitative	Qualitative	School Student	Undergraduate / College Student	Public	Scopus	Science Direct
Carpena, F., and Zia, B. (2020)	*				*		
Compen, et al. (2020)			*				
Ferreira, S. M., and Bisognin, V. (2020)	*		*				
Hakizimfura et al. (2020)				*			
Litterscheidt, R., and Streich, D. J. (2020)		*		*			
Popovich et al. (2020)			*				
Zhu, A. Y. F. (2020)	*				*		*
Amagir et al. (2019)	*						
Kuntze et al. (2019)		*			*		
Zhu, A. Y. F. (2019)	*						
Angel, S. (2018)		*		*	*		
Crawford et al. (2018)	*						
Kalmi, P. (2018)		*				*	
Carpena et al. (2017)		*	*				
Lusardi, et al. (2015)				*			

4.4. Impact of Video Content Distribution

Video content distribution refers to the process of developing video content available to audiences through various channels, such as streaming platforms, websites and social media. In this study, all the videos have been distributed to students through online platforms. In addition, all research that employed a quantitative design used a

questionnaire to collect data. Most selected articles focused on measuring behaviour, attitude, financial awareness, financial literacy, financial knowledge, and learning outcomes (see Table 4). Additionally, most articles were integrated into a few variables.

Table 4: Summary of the measured findings

Measured Findings	Total
Research Method	7
Behaviour	5
Attitude	3
Financial awareness	2
Financial literacy	2
Financial knowledge	2
Learning outcomes	2
Decision making	2
Students' learning Interest	2

Financial behaviour

This study of Popovich et al. (2020) also showed that male students had higher budgeting intentions after the intervention, whereas white students had higher savings intentions. Crawford et al. (2018) showed that participants were interested in obtaining more information on savings accounts and were more likely to open one in the next six months after implementing the peer-to-peer quasi-experimental intervention. Kalmi (2018) found significant effects on financial knowledge, but no savings behaviour was shown. Ferreira and Bisognin (2020) revealed that implementing a didactic sequence enhanced students' interest, cooperation, autonomy, curiosity, and reflection on the financial situation.

Financial knowledge, financial literacy and financial awareness

The results of Popovich et al. (2020) showed the* impact on financial knowledge ($d=0.45$ to 0.72) and financial attitude ($r=0.25$, $p=0.016$) on community students. Additionally, Kuntze et al. (2019) revealed that the mean score of non-quantitative business-major students (marketing= 7.64 , finance= 7.69 , accounting= 7.50 , management= 6.88) was not less financially literate than students from other courses after the video intervention. However, female African-American college students performed lower ($M=3.59$, other group= $4.33-4.56$) on the financial literacy test.

Amagir et al. (2019) shared that the animated video clips "Save Wise" enhanced high school students' financial awareness and financial knowledge, financial attitudes, and behaviour toward money and self-efficacy. The effectiveness of a program involving a video and written narratives that came with a story and an interactive visual tool indicated that participants improved in financial literacy and self-efficacy (Lusardi et al., 2015).

Financial awareness and attitudes serve as pathways for simple financial action. However, individual attitudes influenced more complex financial decisions, such as opening a savings account. Litterscheidt and Streich (2020) mentioned that financial education might indirectly affect

investment outcomes. Zhu (2019, 2020) specified a positive interaction between parental financial and adolescents' and students' financial attitudes after the intervention in the experimental group compared to the control group. Nevertheless, this study also showed a positive interaction between direct parental teachings. However, self-control in financial behaviours was weaker in the experimental group than in the control group. This model obtained the value for $CFI=0.995$; $RMSEA=0.033$, parental financial norms significantly improved the objective financial knowledge of adolescents ($b=0.18$, $p < 0.01$) increased their adoption of parental financial role modelling ($b=0.21$, $p<0.01$) and improved financial attitudes ($b=0.33$, $p<0.01$) (Zhu, 2019). The model developed by Zhu (2020) and Samsudin et al. (2022) demonstrated a good model ($CFL=0.968$, $RMSEA=0.054$).

Learning outcome

Compen et al. (2020) indicated that students with teachers who participated in webinar intervention achieved 0.39 standard deviations higher learning outcomes than those whose teachers did not engage in the intervention. Carpena et al. (2017) revealed significant goal setting and counselling effects on real financial outcomes but not on learning financial incentives.

Carpena and Zia (2020) demonstrated that financial education does not affect financial outcomes. In contrast, Hakizimfura et al. (2020) showed no financial practices but statistically significant improvement in financial planning and savings deposit among the selected group. Angel (2018) mentioned that the average results for students' post-test score were much higher than their pre-test; for instance, income performance score (post-test= 75.09 , pre-test= 48.80), money management score (post-test= 66.89 , pre-test= 42.87), spending and credit card score (post-test= 61.71 , pre-test= 33.72), and saving and investing performance (post-test= 65.16 , pre-test = 41.45). Most of the studies showed significant use of digital media in enhancing financial literacy, even though the variables were different.

5. Discussion

The experimental design was most favourable for the selected quantitative reviews. The researchers chose quantitative research over qualitative research. Experimental or quasi-experimental studies measure the research's effect or effectiveness better. As most of the studies compared the impact before and after the intervention, the quantitative method could provide a clearer picture to measure the experiment's effectiveness. However, almost all the studies used students as samples, basically as financial literacy should be instilled in schools rather than

taught when students grow up. The integration of financial literacy in schools is very effective because parents are busy working rather than instilling financial literacy values among their children. Therefore, parents' behaviours have a significant influence on their children (Khatun, 2018).

Based on previous studies' findings, it can be concluded that implementing videos in teaching enhances students' learning of financial literacy. Learning with video has gained attention since classroom settings emphasize blended learning. Video also integrates animation, sound, and music and makes the lessons livelier and more interactive. Additionally, YouTube and other social media provide short videos on various subjects that serve as learning platforms. The impact of video learning can promote financial behaviour, financial knowledge, financial literacy, financial awareness and learning outcome among students. This study can bridge the gap between the awareness of financial literacy, financial behaviour, financial knowledge and learning outcome because it is a promising area to strengthen the insights around the impact of video content distribution. The impact of video content distribution through this study supports the practical implication outlined by most of the researchers mentioned above. Furthermore, all the evidence also supports the theory of active learning because most of the video learning was student-centered activities with tasks helping students engage with financial literacy. Figure 2 has summarised the impact on video content distribution.

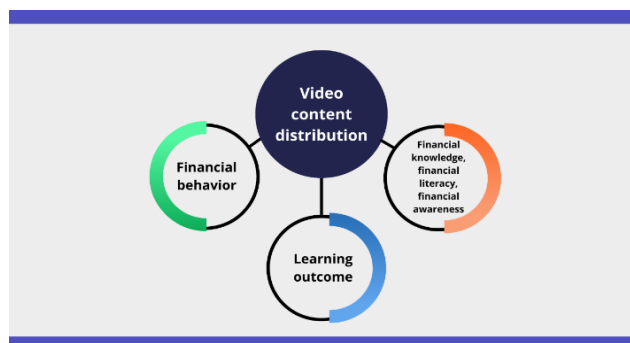


Figure 2: Impact on video content distribution

Therefore, video-based learning has become the most popular learning tool after the advent of technology tools in education. The advancement of fingertip technology, such as video, also allows students to learn anywhere and anytime (Shah et al., 2019; Raja Harun et al., 2021).

6. Implication

This systematic review has important implications for policy and practice.

This systematic review raises awareness among education policy planners about instilling financial literacy in the curriculum, implemented with the assistance of e-learning. This study elevates the importance of financial literacy to the global education system, which promotes students' financial literacy and leverages ICT. Financial literacy awareness needs to be instilled in students in school because this is a lifelong skill that enhances students' ability to manage their money to have a better life in the future. However, many developing countries do not teach financial education in the curriculum. Therefore, teachers' training is essential to include financial literacy in the curriculum. Additionally, an important method for instilling financial literacy is video learning. These two implications are vital because they align with Education 4.0 and the current education trend. Nevertheless, just like any digital tools, if the students use too much time to watch the videos, it may bring side effect to their eye-sights. The propose time for education video is around 2-3 minutes.

Educators, school heads, and teachers need to work hard to provide meaningful teaching to students in instilling financial literacy. Meaningful education is knowledge-based, but life skills, such as financial literacy, need to inspire a responsible citizen. Researchers also suggested that school teachers design a lesson that instils various life skills, such as financial literacy, to prepare students to face future challenges in the financial world.

7. Limitations, Recommendations and Conclusions

Despite the fact that this study only examined a small number of papers from the Web of Science and Scopus databases, the pattern shows that a rise in the number of publications is on the way. This is due to the fact that the topic of strengthening video learning on promoting financial literacy from researchers. Searching databases such as Sage, Springer, Science Direct, and Taylor Francis can provide access to a broader range of data. As previously mentioned, future researchers can use scoping reviews to identify gaps in the evidence base, summarise and communicate results, and assess whether or not a systematic review is required (Razak et al., 2022; Yahaya et al., 2022). In addition, most of the cited literature only discussed in this paper were video content distribution across the internet to the users' access networks. As a result, future research studies on this area will incorporate more database resources. According to the study's conclusions, future research may concentrate on in-depth analyses of in the context of management.

On the whole, this paper has shown the pattern of recent studies on learning financial literacy using videos. Experimental design, quasi-experimental design, and

qualitative design were utilized in the selected studies. School students, college students, teachers, and the public responded to the survey. Despite the methods used by researchers in their studies, the effects and impacts video content distribution in various ways have been proven. Implementing video in teaching may enhance students' perceptions, information, and attraction to learning. Students can better understand blended learning and discussion on video media (Exposito et al., 2020). The data source from Scopus and Science Direct is a limitation of this study. Despite the study's limitations, this study can become a reliable reference for researchers in similar areas. Learning with video has contributed significantly to students' performance, satisfaction, and motivation in various research (Ljubojevic et al., 2014; Scagnoli et al., 2017).

References

- Adam, A. M. (2017). Gender disparity in financial literacy: Evidence from homogeneous group. *Journal of Accounting and Management*, 7(2), 140-148, doi: <http://journals.univ-danubius.ro/index.php/jam/article/view/4076/4186>
- Amagir, A., Groot, W., van den Brink, H. M. & Wilschut, A. (2019). SaveWise: The design of a financial education program in the Netherlands, *Citizenship Social & Economics Education*, 18(2), 100-120. doi: <https://doi.org/10.1177%2F2047173419870053>
- Angel, S. (2018). Smart tools? A randomized controlled trial on the impact of three different media tools on personal finance. *Journal of Behavioral and Experimental Economics*, 74(1), 104–111, doi: <http://dx.doi.org/10.1016/j.socec.2018.04.002>
- Carpena, F., & Zia, B. (2020). The causal mechanism of financial education: Evidence from mediation analysis. *Journal of Economic Behavior and Organization*, 177(1), 143–184, doi: <https://doi.org/10.1016/j.jebo.2020.05.001>
- Carpena, F., Cole, S., Shapiro, J., & Zia, B. (2017). The ABCs of financial education: experimental evidence on attitudes, behavior, and cognitive biases. *Management Science Article In Advance*, 1(2017), 1-24, doi: <http://dx.doi.org/10.1287/mnsc.2017.2819>
- Compen, B., Witte, K. D. & Schelfhout, W. (2020). The impact of teacher engagement in an interactive webinar series on the effectiveness of financial literacy education. *British Journal of Educational Technology*, 52(1), 1-15, available at: <https://bera-journals.onlinelibrary.wiley.com/doi/epdf/10.1111/bjet.13013>
- Crawford, A., Lajbcygier, P., & Maitra P. (2018). Financial education via television comedy. *Applied Economic Letter*, 1(2018), 1-5, doi: <https://doi.org/10.1080/13504851.2017.1422595>
- Exposito, A., Sanchez-Rivas, J., Gomez-Calero, M. P. & Pablo-Romero, M. P. (2020). Examining the use of instructional video clips for teaching macroeconomics. *Computers & Education*, 144(1), 1-11, doi: <https://doi.org/10.1016/j.compedu.2019.103709>
- Ferreira, S. M. & Bisognin, V. (2020). Construction of mathematical and financial concepts based on realistic mathematics education. *Acta Sci. (Canoas)*, 22(5), 226-253, available at: <https://www.readcube.com/articles/10.17648%2Facta.scientiae.5925>
- Fullam, J. (2016). Becoming a youth activist in the internet age: a case study on social media activism and identity development. *International Journal of Qualitative Studies in Education*, 30(4), 406–422, doi: <http://dx.doi.org/10.1080/09518398.2016.1250176>
- Grunis, M.L., Golovanova, I. I., Kirilova, G.I., Levina, E.Y. & Sizova, Z.M. (2021). Transformation of pedagogical communicative competence during creation digital online courses. *Contemporary Educational Technology*, 13(1), 1-13, available at: <https://www.cedtech.net/download/transformation-of-pedagogical-communicative-competence-during-creation-digital-online-courses-9313.pdf>
- Hakizimfura, E., Randall, D. & Zia, B. (2020). Decentralized delivery of financial education: Experimental evidence from Rwanda. *Journal of Development Economics*, 144(1), 1-10, doi: <https://doi.org/10.1016/j.jdeveco.2020.102439>
- Higgins, H. & Moeed, A. (2017). Fostering curiosity in science classrooms: inquiring into practice using cogenerative dialoguing. *International Council of Association for Science Education*, 28(3), 190-198, available at: <https://files.eric.ed.gov/fulltext/EJ1160627.pdf>
- Isik, C. & Yilmaz, S. (2012). The role of ICT in general economics teaching: an example from Turkey. *International Journal of Education Economics and Development*, 3(4), 289-304, doi: <https://dx.doi.org/10.1504/IJEED.2012.052310>
- Jaakko, L. & Veli-Matti, V. (2018). The use of humour during a collaborative inquiry. *International Journal of Science Education*, 1(2018), 1-18, doi: <http://dx.doi.org/10.1080/09500693.2018.1508926>
- Johnson, D. W. & Johnson, R. T. (2018). Cooperative learning: The foundation from active learning. *Active Learning - Beyond the Future*, 1(2018), 60-70, doi: <http://dx.doi.org/10.5772/intecopen.81086>
- Jordan P. F. (2017). From seeing to believing: Using instructional video to develop culturally responsive teaching. *Journal for Multicultural Education*, 11(2), 131-148, doi: <https://doi.org/10.1108/JME-09-2016-0053>
- Kalmi, P. (2018). The effects of financial education: Evidence from Finnish Lower secondary Schools. *Economic Notes*, 47(2-3), 353-386, doi: <http://dx.doi.org/10.1111/ecno.12114>
- Kartini, K., Fitri, F., Rabiya, U., & Anggraeni, D. (2021). Analysis of the Financial Literacy Behavior Model. *Golden Ratio of Finance Management*, 1(2), 114-122. doi: <https://doi.org/10.52970/grfm.v1i2.69>
- Khalid, K. & Ismail, R. (2019). Spending profiles of Sultan Idris Education University undergraduates: A CHAID-Based segmentation. *International Business Education Journal*, 12(1), 39-52, doi: <https://doi.org/10.37134/ibej.vol12.4.2019>
- Khatun, M. (2018). Effect of financial literacy and parental socialization on students savings behavior of Bangladesh. *International Journal of Scientific and Research Publications*, 8(12), 296-305, doi: <http://www.ijsrp.org/research-paper-1218/ijsrp-p8440.pdf>

- Khoo, Y.Y. & Fitzgerald, R. (2017). Pocket cartoons: Learning financial literacy with mobile cartoons in Malaysia. *International Journal of Mobile and Blended Learning*, 9(4), 49-64, doi: <http://dx.doi.org/10.4018/IJMBL.2017100104>
- Kirk, R. E. (2013). *Experimental design: Procedure for the Behavioural Science* (4th ed.). Sage Publications, Inc, available at: <https://methods.sagepub.com/book/experimental-design>
- Kuntze, R., Wu, C., Ross, W. & Whuang, Y-O. (2019). Improving financial literacy in college of business students: Modernizing delivery tools. *International Journal of Bank Marketing*, 37(4), 976-990, doi: <https://doi.org/10.1108/IJBM-03-2018-0080>
- Li, G., Ito, Y., Yu, X., Nitta, N., & Babaguchi, N. (2010). Recoverable privacy protection for video content distribution. *EURASIP Journal on Information Security*, 2009(1), 1-11. doi: <https://doi.org/10.1155/2009/293031>
- Litterscheidt, R. & Streich, D. J. (2020). Financial education and digital asset management: What's in the black box?. *Journal of Behavioral and Experimental Economics*, 87(1), 2-34, doi: <https://doi.org/10.1016/j.socec.2020.101573>
- Ljubojevic, M., Vaskovic, V., Stankovic, S. & Vaskovic, J. (2014). Using supplementary video in multimedia instruction as a teaching tool to increase efficiency of learning and quality of experience. *International Review of Research in Open and Distributed Learning*, 15(3), 274-291, doi: <https://doi.org/10.19173/irrodl.v15i3.1825>
- Lo, C.K. & Hew, K.F. (2017). A critical review of flipped classroom challenges in K-12 education: possible solutions and recommendations for future research. *Research and Practice in Technology Enhanced Learning*, 12(1), 2-22, doi: <https://doi.org/10.1186/s41039-016-0044-2>
- Lusardi, A. (2019). Financial literacy and the need for financial education: Evidence and Implication. *Swiss Journal of Economics and Statistics*, 155(1), 2-8, doi: <http://dx.doi.org/10.1186/s41937-019-0027-5>
- Lusardi, A. (2019). Financial literacy and the need for financial education: evidence and implications. *Swiss Journal of Economics and Statistics*, 155(1), 1-8. Doi: <https://doi.org/10.1186/s41937-019-0027-5>
- Lusardi, A., & Mitchell, O. S. (2011). Financial literacy and retirement planning in the United States. *Journal of pension economics & finance*, 10(4), 509-525, available at: https://www.nber.org/system/files/working_papers/w17108/w17108.pdf
- Lusardi, A., Samek, A., Kapteyn, A., Glinert, L., Hung, A., Heinberg & Aileen. (2015). Visual tools and narratives: New ways to improve financial literacy. *Journal of Pension Economics and Finance*, 16(3), 297-323, doi: <https://doi.org/10.1017/S1474747215000323>
- Mahdzan, N. S. A., Abd Sukor, M. E., Ismail, I., & Rahman, M. (2020). *Consumer Financial Vulnerabilities in Malaysia: Issues, Trends and Psychological Aspects*. Routledge. available at: [https://books.google.com.my/books?hl=en&lr=&id=6dsKEAAAQBAJ&oi=fnd&pg=PP1&dq=Financial+Education+Network.++\(2019\).+National+Strategy+for+Financial+Literacy+2019-2023:++Empowering+Financial+Freedom.+Malaysia,+available+&ots=TBuydAebIY&sig=gO-FM1YSN8lyRKKaVZINCYMiO2A&redir_esc=y#v=onepage&q&f=false](https://books.google.com.my/books?hl=en&lr=&id=6dsKEAAAQBAJ&oi=fnd&pg=PP1&dq=Financial+Education+Network.++(2019).+National+Strategy+for+Financial+Literacy+2019-2023:++Empowering+Financial+Freedom.+Malaysia,+available+&ots=TBuydAebIY&sig=gO-FM1YSN8lyRKKaVZINCYMiO2A&redir_esc=y#v=onepage&q&f=false)
- Mavlutova, I., Fomins, A., Spilbergs, A., Atstaja, D., & Brizga, J. (2021). Opportunities to increase financial well-being by investing in environmental, social and governance with respect to improving financial literacy under covid-19: The case of Latvia. *Sustainability*, 14(1), 339. doi: <https://doi.org/10.3390/su14010339>
- Nicolaou, C., Matsiola, M. & Kalliris, G. (2019). Technology-enhanced learning and teaching methodologies through audio visual media. *Education Science*, 9(196), 2-16, doi: <http://dx.doi.org/10.3390/educsci9010062>
- Okoli, C. (2015). A guide to conducting a standalone systematic literature review. *Communications of the Association for Information Systems*, 37(1), 879-910, available at: <https://aisel.aisnet.org/cgi/viewcontent.cgi?article=3908&context=cais>
- Petticrew, M. & Roberts, H. (2006). *Systematic reviews in the social sciences: A practical Guide*. Blackwell Publishing, available at: <https://onlinelibrary.wiley.com/doi/book/10.1002/9780470754887>
- Polat, H. (2020). Investigating the use of text positions on videos: An eye movement study. *Contemporary Educational Technology*, 12(1), 1-18, available at: <http://files.eric.ed.gov/fulltext/EJ1244700.pdf>
- Popovich, J. J., Loilb, C., Zirkle, C. & Whittington, M. S. (2020). Community college students' response to a financial literacy intervention: An exploratory study. *International Review of Economics Education*, 34(1), 1-15, doi: <https://doi.org/10.1016/j.iree.2020.100182>
- Raja Harun, R. S., Hanif, M. H. & Goh, S. C. (2021). The pedagogical affordances in e-portfolio in learning how to teach: A systematic review. *Studies in English Language and Education*, 8(1), 1-15, doi: <http://jurnal.unsyiah.ac.id/SiELE/article/view/17876>
- Razak, A. A., Ramdan, M. R., Mahjom, N., Zabit, M. N. M., Muhammad, F., Hussin, M. Y. M., & Abdullah, N. L. (2022). Improving critical thinking skills in teaching through problem-based learning for students: A scoping review. *International Journal of Learning, Teaching and Educational Research*, 21(2), 342-362. doi: <https://doi.org/10.26803/ijlter.21.2.19>
- Reswari, A. W., Sudarto & Widiastuti, E. (2018). The influence of financial literacy towards financial behaviour. *Journal of Research in Management*, 1(2), 11-17, doi: <http://dx.doi.org/10.32424/jorim.v1i2.28>
- Salas-Velasco, M. Moreno-Herrero-D. & Sanchez-Campillo, J. (2020). Teaching financial literacy in school and students' financial literacy: A cross-country analysis with PISA data'. *International Journal of Finance and Economics*, 1(202), 1-27, doi: <https://doi.org/10.1002/ijfe.2005>
- Samsudin, N., Ramdan, M. R., Abd Razak, A. Z. A., Mohamad, N., Yaakub, K. B., Abd Aziz, N. A., & Hanafiah, M. H. (2022). Related Factors in Undergraduate Students' Motivation towards *Social Entrepreneurship in Malaysia*. *European Journal of Educational Research*, 11(3), 1657-1668. doi: <https://doi.org/10.12973/eu-jer.11.3.1657>
- Scagnoli, N. I., Choo, J. & Tian, J. (2017). Students' insights on the use of video lectures in online classes", *British Journal of Educational Technology*, 550(1), 399-414, doi: <http://dx.doi.org/10.1111/bjet.12572>

- Shah, A., Suhailiezana, Che Kob, C. G. & Khairudin, M. (2019). Effectiveness of M-Learning applications for design and technology subject. *International Journal of Interactive Mobile Technologies*, 13(10), 120-133, doi: <http://dx.doi.org/10.3991/ijim.v13i10.11324>
- Sharif, P. S., Ahadzadeh, A. S. & Turner, J. J. (2020). Gender differences in financial literacy and financial behaviour among young adults: The role of parents and information seeking. *Journal Family and Economic Issues*, 41(1), 672-690, available at: <https://link.springer.com/article/10.1007/s10834-020-09674-z>
- Swiecka, B, Yesildag, E, Ozen, E. & Grima, S. (2020). Financial literacy: the case of Poland. *Sustainability*, 12(700), 2-17, doi: <http://dx.doi.org/10.3390/su12020700>
- Syaparuddin, S. and Elihami, E. (2020). Improving student learning motivation through the utilization of video media in education students. *Jurnal Edukasi Non formal*, 1(2), 228- 235, doi: <https://ummaspul.e-journal.id/JENFOL/article/view/570/315>
- Win, T. (2019). The practice of technological pedagogical content knowledge of teacher educators in Education College in Myanmar. *Contemporary Educational Technology*, 11(2), 159-176, doi: <https://doi.org/10.30935/cet.660829>
- Yahaya, R., Ramdan, M. R., Ahmad, N. L., Ismail, R., Khalid, K., Jusoh, M. A., & Isa, R. M. (2022). Educators' motivation and intention within the UTAUT model to adopt the flipped classroom: A scoping review. *International Journal of Learning, Teaching and Educational Research*, 21(2), 285-302. doi: <https://doi.org/10.26803/ijlter.21.2.16>
- Zawacki-Richter, O., Kerres, M., Bedenlier, S., Bond, M. & Buntins, K. (Eds.). (2020). *Systematic review in educational research: Methodology, perspectives & application*, Springer, doi: <http://dx.doi.org/10.1007/978-3-658-27602-7>
- Zheng, L., Bhagat, K.K., Zhen, Y. & Zhang, X. (2020). The effectiveness of the flipped classroom on students' learning achievement and learning motivation: A meta-analysis", *Educational Technology and Society*, 23(1), 1-15, available at: <https://www.jstor.org/stable/26915403>
- Zhu, A. Y. F. (2019). School financial education and parental financial socialization: Findings from a sample of Hong Kong adolescent. *Children and Youth Services Review*, 107(1), 1-9, doi: <https://doi.org/10.1016/j.childyouth.2019.104532>
- Zhu, A. Y. F. (2020). Impact of school financial education on parental saving socialization in Hong Kong adolescents. *Journal of Behavioral and Experimental Economics*, 87(1), 1-9, doi: <http://dx.doi.org/10.1016/j.socec.2020.101557>