

Microlearning moments benefit both investors and investment platforms: Insights from experimental research.

Insight 4

Microlearning is a big deal.

We've all been in mind-boggling situations. Those confusing moments where we just don't know what to do next. Perhaps we can't find the word we need in a foreign language. Or maybe we're struggling to make the right choice on an investment app. And in those times, just a small nugget of useful guidance is priceless. So, what if an investment platform could offer a perfect pop of information at exactly the right moment? Would this be a helpful feature for clients? We set out to put it to the test! And, what we found was compelling. Microlearning moments matter, a lot.

It's no secret that microlearning is a powerful and effective way to teach people new skills. After all, breaking complex content into relevant, bitesize chunks of knowledge is an ideal way to find quick answers to specific problems. Learning and Development professionals have found this to be one of the best approaches for years. Even as far back as 2014, a whopping 94%¹ favoured microlearning as an effective teaching method. Today, it's fast becoming the backbone of every modern teaching programme. Between 2006 and 2019, the number of research papers on the subject of microlearning increased a staggering 47 times². And already in 2017, companies planning to increase microlearning for on-the-job training surged by 92%³.

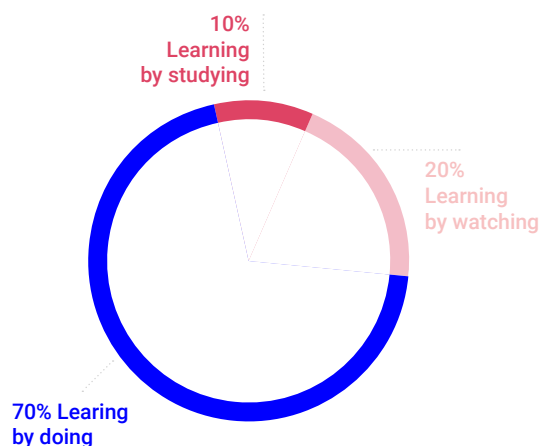
Part of the success of microlearning is that it hinges on the "learning by doing" approach, possibly the most compelling teaching method ever discovered. After all, it's how we first

learned to walk, talk, and figure out a smart phone. As ancient Chinese philosopher, Confucius reflected, "I hear and I forget. I see and I remember. I do and I understand".

In the 1980s, the Morgan McCall Centre for Creative Leadership crunched the numbers, and created a go-to term for effective learning. Known as the 70-20-10 model⁴, the researchers discovered that 70% of our learning comes from on-the-job experience, in other words, "learning by doing". From there, 20% comes from developmental relationships with our colleagues and mentors. This is "learning by watching". And just a teeny 10% comes from traditional educational training – or "learning by studying" – which is more of an amplifier for our existing knowledge, than a basis for fresh knowledge. In other words, the 10% we learn from online training courses or seminars may help us to slightly improve on what we already know.

What's more, as the investment space becomes crowded with competing offers, better service and customer centricity will separate the winners from the masses. Customer care and attention will remain a real differentiator, also in the online investment space.

So, how can we use microlearning to provide a better service and help investors become better at reaching their goals?



GRAPH: The 70-20-10 model for learning

OUR HYPOTHESES AROUND MICROLEARNING AND INVESTMENT APPS

Before we began our experiment, we already had some ideas which we wanted to test. When it comes to retail self-investors, we wanted to see if microlearning helps:

- Hypothesis 1: Investors engage more with learning content
- Hypothesis 2: Investors effectively learn more
- Hypothesis 3: Investors like the learning experience more

To discover the answers on investment app users, we collaborated with Mintlab. Mintlab – which is an acronym for The Meaningful Interactions Lab – is a research group within the Institute for Media Studies at the University of Leuven. The group performs both fundamental and applied human-computer interaction research from the perspective of social sciences and humanities.

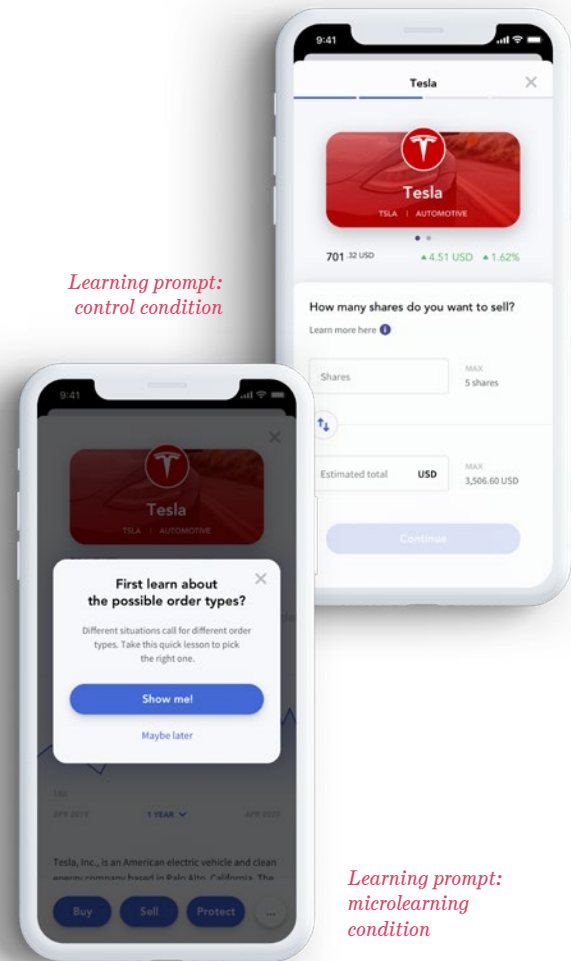
Together with Mintlab, we conducted original research to find out how microlearning can be effective within investment platforms, and how best to apply it.

HOW WE CONDUCTED THE EXPERIMENT

278 investors took part in our study, and they all had vastly different levels of experience. From seasoned self-investors with over five years of experience to fresh-faced new-comers, we brought together a broad and representative range of participants.

The experiment

To create experimental realism, none of the participants knew what we were testing. We gave them online access to a clickable demo version of a trading app and simply asked them to “sell four Tesla shares”. What we were actually analysing, however, were their interactions with three different learning approaches. The subject of which were the different order types the participants could use in the app, to perform the task.



Learning prompt: control condition

Learning prompt: microlearning condition

Between subject design

We split the 278 participants into three groups, each experiencing a different treatment condition:

- The first -the control group- were given the option to learn how to sell their shares with a traditional ‘academy-style’ approach.
- The second -the microlearning group- were given the same option to learn how to sell their shares, but they were presented with a microlearning-style lesson, embedded in the task flow.
- The third - the microlearning + gamification group- were also given an opportunity to learn how to sell their shares within the task flow, but were presented with a microlearning style lesson that featured an additional gamification element.

Once all the participants had completed their lesson and sold the shares, we also conducted a survey to find out more about their learning experience. Here's what we discovered from analysing the data from both the experiment and the survey:

FINDING 1

Microlearning engages twice as many investors as academy style learning.

Because the participants were not tasked to learn about selling but simply 'sell 4 Tesla shares', not everybody opted to take the lesson.

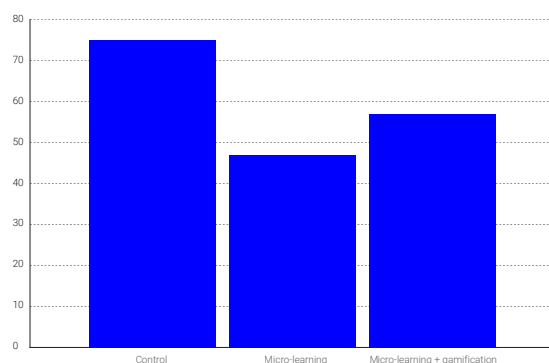
- In the control group, only 25% of participants took the lesson.
- In the microlearning group, 53% of participants took the lesson.
- In the microlearning + gamification group, 43% of participants took the lesson.

These findings are a clear indication that investors are more open to microlearning prompts than links to academy-style educational content. In fact, by using the prompt, more than double the percentage of participants were willing to give the microlearning a try.

When we later asked the respondents why they decided to skip the lesson, three main reasons were cited.

- "I was in a hurry, and didn't have enough time".
- "I was too focused on completing the task that was given".
- "I was already confident about what to do and didn't need the lesson".

■ PEOPLE THAT DID NOT ACCESS LESSON



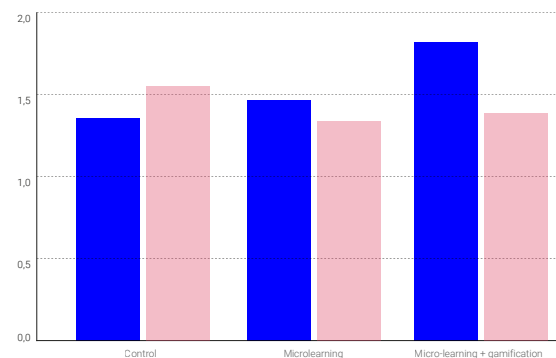
GRAPH: Post experiment survey

FINDING 2

Microlearning is only slightly more effective for knowledge retention than traditional teaching or gamification.

To assess knowledge retention we quizzed participants after completing their task with a multiple choice questionnaire on the subject of order types. Although the mean scores on the quiz increase from the control group (M=1.36), to the microlearning group (M=1.47), and then again to the microlearning + gamification group (M=1.82), we did not measure a statistically significant difference between them. This signals that participants who didn't feel too confident about the sell-transaction retained more (not less) knowledge in the microlearning conditions than in the control condition... but not markedly so.

■ PEOPLE THAT TOOK THE LESSON
■ PEOPLE THAT DID NOT ACCESS LESSON



GRAPH: Knowledge Quiz Scores

This finding is in contrast with a RPS study⁵ that found microlearning to be up to 80% more effective for knowledge retention. However, this may be because the RPS study incorporated regular microlessons over a series of days and across different media platforms, whereas our experiment did not. Our experiment was conducted in one sitting. As knowledge we pick up throughout the day transfers from our short-term to long-term memory with sleep, this may have impacted our findings.

FINDING 3

Self-investors found microlearning to be more useful than traditional learning styles.

While the participants didn't especially enjoy any of the traditional or microlearning approaches, they did find one to be very useful. Microlearning came out on top as the most effective style.

The way we discovered this was by presenting participants with a standardized UEQ-S questionnaire after the experiment. In this questionnaire, users could score the experience on eight semantic differential scales.

Half of the questions asked about how much the participants enjoyed the learning process. To measure these 'hedonic' qualities, we quizzed participants about how exciting, enjoyable, creative, or attention-grabbing the lessons were. Across all three learning styles, participants did not find the lessons particularly enjoyable or fun.

However, the other half of the questions focused on how 'pragmatic' the lesson was. For example, they asked participants about the simplicity, efficiency, easiness and familiarity of the lesson, as well as whether it boosted their self-confidence. In this instance, microlearning was the clear winner.

SELF-INVESTORS WANT TO MICRO LEARN ABOUT THREE IMPORTANT THEMES

Our research reveals some clear benefits of integrating microlearning moments into an investment application. But what do self-investors want to learn more about? To find out how investment platforms can create the best microlearning experiences, we interviewed participants.

Self-investors want to learn a lot! But usefully, the knowledge they seek can be broken down into three main categories:

1. Investing and the economy:

Self-investors are interested in learning more about the whole investment process. They're looking for answers to questions such as;

- How does the market work?
- How do companies work?
- What are the characteristics of the different instruments I can invest in?
- How does the investment platform itself work?

2. Me as an investor:

Participants are intrigued to find out more about how investing can benefit them and how they should go about pursuing their goals. They want to reflect on personal questions such as;

- Which type of investor am I?
- How do I create a strategy that fits my goals?
- How should I go about making investment decisions?

3. Behind the scenes:

Self-investors also wanted to unlock the fee structure behind the payment platforms to ensure that they were getting good value for money. Some of their key concerns included:

- What does the financial institution or broker platform do?
- What am I paying for exactly?

Our research indicates that microlearning moments should home in on these three topics. Providing clear and simple answers in an accessible way for self-investors, at the point they need it.

SEVEN MUST-HAVE DESIGN FEATURES FOR MICROLEARNING

So, how should the microlessons be formatted for self-investors? As fintechs create investment platforms, this question should be one of the foundations of the user-experience strategy.

To discover the answer, we interviewed participants on their preferences. The results of our research reveal seven must-haves for microlearning

1. Keep it simple

Clear and simple language was a top focus for our participants, who were looking for the quickest way to complete their task correctly. In their 2020 paper, Jahnke et al⁶ indicated that microlearning copy could be constructed in the same way that journalists write news articles for smart phones. Dubbed as the “5 Cs”, copy must be, “clear, concise, correct, credible and complete”.

“It’s actually not that important that it’s an article or a video. It’s more about the language. It needs to be adjusted to the level of experience of the user.”

2. Break into bitesize chunks

Known by academics as “chunking”, our participants reaffirmed that small, bitesize lessons work best.

In their 2020 paper, Jahnke et al highlighted that one of the major design challenges for mobile microlearning was trying to fit too much information onto a small screen. Investment app designers, therefore, should focus on reducing the lessons to manageable chunks, which fit easily onto a screen.

“For impulsive doers like me I prefer a short and concise message. But maybe banks are afraid of giving this kind of short information because then you’re going to say: Hey, it all failed because of what you told me”

3. Include a graph or visual

A picture is worth a thousand words, and this is especially true for microlearning. Our participants were keen to have a visual aid to help them quickly cement their new lesson.

“I think video combined with graphs is the best (form of teaching). Young people will not read a long article (...) it’s about highlighting the main bullet points”

4. Apply across multiple media platforms

Reiterating the microlesson across multiple sources has been a staple in the microlearning field for some time, and our research corroborated this view. Participants in our study found that learning the same material in several

different contexts was preferable to just one exposure.

Building upon this finding, a 2017 study by Göschlberger and Bruck⁷ revealed that including interactive sources can also make the microlesson more effective. They recommend moving beyond passive text and videos and towards more active learning.

“I first learned about ETFs in an article, then watched YouTube videos about it and then read more specific articles about it.”

5. Make it easy to skip, rewind and pause

We found that self-investors want to learn independently, cherry-picking the best nugget of information for them, on the best-suited platform. And so, investment apps which facilitate this flexible approach to microlearning may benefit from an enhanced customer experience.

“I want to do it how I want, whenever I want. If something is not clear, you can just rewind it or just pick another tutorial.”

6. Encourage trial and error

Learning by doing is an important part of the microlearning process, and this was reflected in the self-investor feedback.

“What helped me most so far, is perhaps ‘doing it’ and making mistakes. You learn from mistakes.”

7. Keep it short

Finally, self-investors want the platform to be respectful of their time by keeping lessons short. Exactly how short depends on the application and knowledge needed. When it comes to mobile micro lessons, Jahnke et al found that “chunked courses” such as these tend to be less than 90 seconds and focus on a single learning objective.

“(…) you spend 15 minutes watching a video and at the end you say: ‘I still don’t know what I wanted to know.’”

To summarise ...

Our research confirms that microlessons are a powerful learning method. Supporting users in their moment of need with a burst of quick, clear, and relevant information can provide maximum impact. Investment apps and platforms interested in augmenting their user experience should consider that:

Hypothesis 1: Investors engage more with microlearning

YES: A microlearning flow is twice as effective at engaging self investors with educational content than a traditional, academy-style flow.

Hypothesis 2: Investors learn more with microlearning

NO: Contrary to other research, we found no evidence that investors retain significantly more knowledge with microlearning than other learning approaches.

Hypothesis 3: Investors like the microlearning experience more

PARTIALLY TRUE: While investors did not particularly enjoy the microlearning experience more than the other learning styles in a hedonic way, they did value it more from a pragmatic point of view.

In addition to answering our hypotheses, we also uncovered some additional valuable information for investment apps.

- When it comes to microlearning, investors are most interested in learning about general investing and the economy, themselves as investors and behind-the-scenes fee structures.
- Investors have clear preferences for their microlearning moments. Namely, that they must be short (perhaps less than 90 seconds), concise, visual, easy to manoeuvre, interactive and available across multiple media sources.

A study by Major and Calandrino⁸ corroborates this view. “When information is sliced into frequent microlearning opportunities, the cognitive load is decreased tremendously, and the knowledge is easily retained and used”. Creating a simple and engaging platform which helps self-investors leads to more engagement and more knowledgeable investing.

2018 research from Upland⁹ shows that 25% of users abandon an app after using it just one time. A possible reason for this is because they were unable to get that much-needed quick burst of relevant information to help them navigate their task. This shows us investment apps have just one chance to get it right.

The results of this experiment indicate that microlearning moments could provide that much-needed burst of actionable information, to keep investors engaged and help them become successful.

FURTHER RESEARCH

To determine the most likeable and effective microlearning design for self-investors, more research is needed. This could include different styles and media used to create learning moments that appeal to a variety of investor types. Financial institutions that are interested in such research can always contact sven.moons@investsuite.com.

ABOUT THE AUTHORS



Sven Moons
sven.moons@investsuite.com
Sven is InvestSuite's customer insights expert and author of its Insight series. His work focusses on the human wants and needs with regards to investing and investment services.



Wim Vanhaeren
wim.vanhaeren@investsuite.com
Wim is InvestSuite's Chief Product & Creative Officer. His work focusses on creating products that investors love and that bring 'good' business to financial institutions.

THANK YOU

The participants in our ideation workshop:

Kaat Iterbeke (KUL, Belgium)
Lawrence Vandenberg (VUB, Belgium)
Juho Hamari (Tampere University, Finland)
Bettina Fuhrmann (Vienna University of Economics and business, Austria)
Elias Storms (KUL, Belgium)
Nannan Xi (University of Turku, Finland)
Kenneth Debeckker (KUL, Belgium)
Emilie Bossens (KUL, Belgium)
Zampeta Legaki (Tampere University, Finland)
Fenella Carpena (Oslo Metropolitan University, Norway)

Jedrzej Czapla and dr. David Geerts at Mintlab



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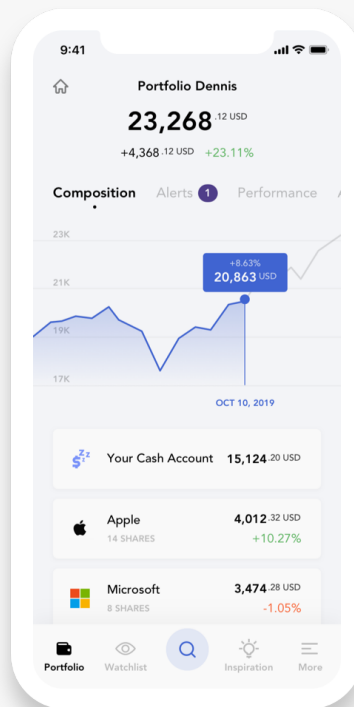
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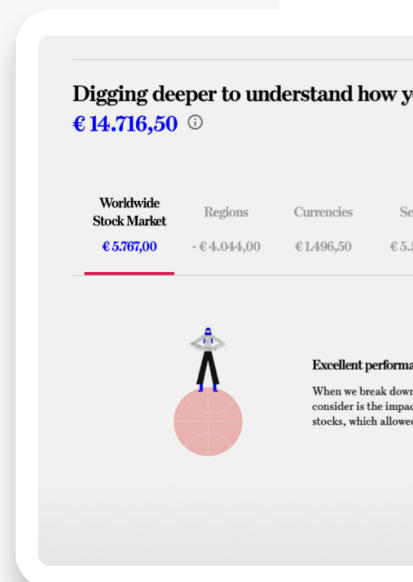
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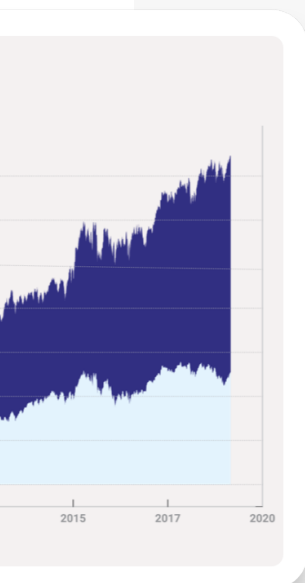
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