

## Investigation of the emotional intelligence development through the segment of clip thinking of public consciousness

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### KEYWORDS

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### ABSTRACT

The devastating socio-psychological consequences of the mental health situation due to the war in Ukraine for both its citizens and the world, as well as the search for and invention of quick and effective ways, methods, and tools to address them, are the subject of research by many scholars. In recent years, they have focused on the mental health of children fleeing the war [1], the impact of the Russian invasion on adolescents' health [2], assessing changes in the mental health of Ukrainian parents [3], the impact of the war on the mental health of soldiers [4]; and ways in which humanitarian organisations can help Ukraine [5]. However, the latest scientific research studies focus not only on the internal processes of the Ukrainian population but also cover such aspects as the impact of the war on migration in the EU [6], mental health in Germany [7] and other countries after the start of a full-scale invasion [8]. The conclusions of these studies are disheartening, as we can observe a large-scale refugee crisis, increased levels of anxiety, fear, stress, feelings of loneliness, and an elevated risk of depression not only among Ukrainians but also among the population of European countries. Ukrainians have been under tremendous stress in recent years since the start of Russia's extensive invasion. They need practical tools to adapt to the constant instability of their environment, and one of the benefits of developing one's emotional intelligence is increased resilience, which helps them cope with stress and setbacks more effectively.

## **Introduction**

According to the United Nations, as of February 2023, up to 10 million Ukrainians are at risk of developing some form of mental disorder [9]. A staggering 25 per cent of Ukraine's population is currently at risk of developing a mental disorder. In 2023, 14.4 per cent of the adult population of Ukraine had probable PTSD, and 8.9 per cent had complex post-traumatic stress disorder. 44.2% of Ukrainian adults had depressive symptoms, and 23.1% had anxiety symptoms [10].

Another factor that, according to analysts, is a humanitarian catastrophe is the 8 million Ukrainian refugees who have arrived in Europe since the beginning of the war [11]. At the same time, the influx of Ukrainian refugees has put a strain on European resources and caused concern among both government institutions and many NGOs, as well as local citizens, about finding housing, employment and social integration in general. Moreover, Ukrainian refugees have created not only social but also psychological tension for the locals in the foreign halos of their residence, thus experiencing double stress, suffering from a "survivor syndrome" because they left their homes, and on the other hand, feeling a "survivor guilt" as uninvited guests on the territory of their hosts.

However, there are numerous upsetting data in connection with the rise in mental health indicators outside of Europe as well. Data from the Centers for Disease Control and Prevention's (CDC) Youth Mental Health Survey paint an alarming picture of an escalating mental health crisis among adolescents. Significant increases in persistent sadness and hopelessness (28% in 2011 vs. 42% in 2021) underscore the urgent need for more attention and resources to address this pressing issue. According to 2022 data, approximately 59.3 million adults aged 18 and older in the United States have a mental illness, which is 23.1% of the total US adult population [12].

In 2018, the World Economic Forum in Davos [13] and the World Health Organization [14] named emotional intelligence one of the key skills for human development for the next 10 years. One of the benefits of developing emotional intelligence is increased resilience, which allows you to cope more effectively with stress and daily challenges.

The main socio-humanitarian task that has arisen today for implementing emotional intelligence improvement programs is developing a methodological knowledge base accessible to a broad target audience, both in terms of age and social realisation. Accessibility, in this case, means studying tools for the most effective assimilation of information, which should consider the current type of thinking/perception of modern individuals who find themselves in an overloaded emotional and informational space. The methodology of clip thinking is widely used in the educational sector, so we created a product for developing emotional intelligence based on its principles – EQ.app.

Our emotional intelligence app is based on an innovative clip-thinking methodology protected by intellectual property copyright and reviewed by the scientific community, particularly by Prof. Ivan Danyliuk, Dean of the Faculty of Psychology at Taras Shevchenko Kyiv State University. Based on the first results of its effectiveness, a memorandum of cooperation was signed with Newcastle University, Northumbria University, Eötvös Loránd University, TEI of Western Macedonia, and TEI Piraeus.

Before launching EQ.app for general public use, we conducted a study to 1) find out whether Ukrainians recognise the relationship between emotional intelligence and possible positive personal life outcomes of its development and 2) test the hypothesis that certain social groups have a conscious need to master emotional intelligence skills. We conducted a quantitative survey to collect information from 6,000 respondents based on the principle of target audience segmentation and a qualitative expert survey among 35 scientists and practising psychologists, owners of large, medium and small businesses, private entrepreneurs, top managers, and middle managers to determine their awareness of EQ. We also analysed textual sources: 20 articles, 15 monographs, three conferences, and 500 social media accounts of the target audience. The expert interviews showed that the majority of respondents - 61% - expressed a high need for emotional intelligence skills development and experienced problems with communication (49%), interpersonal relationships (22%), and empathy (29%).

The results also helped us learn about the key needs respondents are looking for in a tool for developing emotional intelligence: practical help, accessibility, cost-effectiveness, and efficiency.

We chose the most modern and accessible type of electronic media – a smartphone application – as a quick and easy methodology testing tool. We decided to develop an application based on digital tools in the EdTech format for effortless instrumental mastery of the subject area of emotional intelligence by potential users since information about it for a wide range of potential users at that time was available only through cumbersome scientific and popular science sources, from which it was necessary to learn the step-by-step methodology on their own.

With over 200,000 users, EQ.app is a solid basis for exploring the effectiveness of the clip-thinking approach to the perception of information about emotional intelligence. It is necessary and possible to use clip thinking, transforming cumbersome academic knowledge into an adaptable methodological format. The application format allows us to track user behaviour when interacting with the innovative methodology we have developed, which uses all channels of perception – visual, auditory, kinetic, and tactile.

As a result of the ongoing experiment, we have confirmed our hypothesis that it is necessary and possible to use clip thinking to develop emotional intelligence by transforming cumbersome academic knowledge into an adaptive methodological format. Using the results of the study, it becomes possible to introduce the mass formation of emotional intelligence skills for different segments of the population around the world into the process of education, training, and personal development and help them adapt to the stressful environment caused by both external and internal thought triggers. Continuing work on the topic has an ambitious goal – to accumulate, present and implement in a concise and accessible form all humanity's knowledge and methodological achievements in studying and improving a person's emotional life.

The conditions of the modern social and natural environment, saturated with information noise and the results of the negative impact of culture on nature, are accompanied by massive emotional stress and have a significant catastrophic effect on human physical and mental health. Ukrainians find themselves in a situation of constant stress due to Russia's military aggression. Reading news and social media updates has become entertainment and is crucial to protecting one's safety.

It is challenging to process and adapt to the amount of information consumed daily, as there has been a tremendous leap after the digitalisation and the Internet era. According to recent studies, more information was created in the 20th century than in the previous 5000 years [15]. People are exposed to gigabytes of information daily, leading to information overload and lowered well-being [16]. All of these factors contribute to the shift to clip thinking perception and processing of information. Due to the global informatisation of the educational process, clip thinking protects against the tremendous amount of consumed information. [17]

As earlier scientific research studies suggest, an example of adaptation to new realities is using clip thinking in education. The impact of clip thinking on cognitive processes is often characterised by short attention spans and a preference for fragmented information on students' mental abilities. This modern learning style hinders engaging with traditional, in-depth learning materials. [18] School and university teachers agree that due to the revolution in information technology and computerisation over the past years, students have been showing patterns of clip thinking perceptions and properties linked to it: the impossibility of perceiving voluminous texts, problems with information comprehension, establishing connections between content elements, and low speed of information processing. [19]

Despite the often negative representation of clip thinking in academic articles, it has positive aspects, including multitasking ability and speedy intuition thinking and analysing, offering opportunities for innovative teaching methods. [20] Incorporating multimedia elements into teaching can improve student engagement and cognitive function. [15] A combined approach, blending traditional teaching methods with innovative technologies, is proposed as a potential solution to address the challenges of

clip thinking. While clip thinking is detrimental to conventional learning, it can be leveraged through effective teaching strategies to enhance overall results.

Analysing the importance of emotional intelligence for managing an environment of emotional instability, we created a methodology and an app of the same name to use - EQ.app - to build and improve emotional intelligence through clip thinking. Emotional intelligence has been linked to a variety of social and psychological positive outcomes, including better relationships in one's personal life, higher job satisfaction and overall well-being [21], and productivity, as it is generally even more important than social intelligence for success in the workplace [22], and importance for critical leadership competence [23].

Based on the results of our research, we have developed the EQ.app methodology, which is based on the key principles of clip thinking [24, 25]. The novelty lies, among other things, in the user-oriented carrier of the methodology. This application makes it possible to focus on the individual needs of each user through design and personalised content modules. Also, the methods used in the application's functionality make it possible to analyse all channels of user perception, receiving data on their interaction directly. Here are some specific examples of how clip thinking is applied in EQ.app:

- EQ.app courses are divided into short, intensive modules lasting about 10 minutes. This is based on the principle of rapid, fragmented information consumption: clip thinkers often consume information quickly, jumping from one piece of content to another without fully delving into any particular point.
- Verbal practices use short textual and audio stories (2.5 minutes on average) to help users better understand emotions based on the principle of short attention spans, as it is difficult for them to focus on one topic or task for an extended period.
- The Dictionary of Emotions and Description of Emotion Chemistry provides concise definitions of emotions and the biochemical bodily processes that define them to help users develop their emotional literacy.
- The application's methodology uses unique visual elements - emotion and feeling trackers, scales for determining the intensity of emotional experience, icons for finding connections to the user's event series, analytical charts and graphs to display the dynamics of emotional intelligence development - to accompany content based on the principle of visual orientation: visual information such as images, videos, and infographics is preferred over textual content.
- The EQ test and diary are also built-in algorithms of the app program that add interactive interaction to the learning process.

After the application gained 200,000 downloads, it was possible to do a research study on its effectiveness, exploring the novel application of clip thinking in helping people develop their emotional intelligence. We hypothesised that even though people accustomed to short, fast-paced content may struggle with in-depth reading and analysis, adapting materials to fragmented presentation of information might be practical. Thus, our objectives were as follows:

- To investigate changes in the general level of users' emotional intelligence over a certain period
- To investigate changes in users' emotional intelligence indicators over a certain period
- To investigate the level of overall user engagement
- To explore the correlation between the frequency of the application usage and changes in the level of emotional intelligence

### **Material and Methods**

We used the standardised method to evaluate emotional intelligence, the Hall Test [26], which is integrated into the EQ.app. Hall proposed a methodology to identify the essential capabilities for understanding the relationships of a personality that can be represented in the emotional sphere, as well as the ability to manage emotions based on decision-making. This technique consists of 5 scales and 30 statements. The scales include:

- Scale of emotional awareness
- Scale of managing your emotions (emotional forgiveness, emotional non-rigidity)
- Scale of self-motivation (the ability to independently manage your emotional state)
- Scale of empathy
- Scale of managing emotions of other people (the ability to influence the emotional

The longitudinal study involved the study of participants over a long period, which allowed us to track changes in their emotional intelligence levels. The participants were asked to take the test right after downloading the application and one, two or three months after. The results obtained were analysed (Tables 1 and 2,3). We also used the EQ.app analytical data to learn how often people who downloaded the app use it every week. We then used this data to analyse the correlation between the frequency of usage and EQ level (Table 4).

The study sample consisted of 2,000 respondents (1,381 women and 619 men) who downloaded and used the app for 3 months. Similarly to our first research study, we used the principle of segmentation of the target audience when choosing respondents. We analysed two main focuses of emotional intelligence implementation – social and private life. The segments of social implementation are as follows:

- Small and medium business entrepreneurs aged between 25–33 years;
- Highly qualified specialists aged between 33–42 years;
- Business owners aged between 42–52 years.

The segments of private life implementation consisted of the following:

- Romantic relationships, aged between 25–52 years;
- Family relationships, aged between 33–52 years;
- Friendships, aged between 38–52 years.

We have also developed a questionnaire to assess the effectiveness of applying clip thinking methodology for EQ development and collect users' impressions. The questionnaire consists of open and closed questions on the features that users find helpful, the practical use of the theoretical knowledge gained via the EQ.app, the sufficiency and quality of the information provided in the application, and the level of information assimilation. Respondents were asked to answer a series of questions based on their experience over the past year, including their cognitive activity in developing emotional intelligence through the app (Table 5).

## **Results**

We obtained the following results according to the methodology of studying the level of emotional intelligence development and its indicators using the standardised method, the Hall Test [26].

The overall level of emotional intelligence, which considers all scales, is measured by the following quantitative indicators:

- Up to 39 points – low;
- 40-69 – average;
- 70 and more – high.

Individuals with high scores typically understand and manage their emotions and those of others, leading to effective communication, decision-making, and interpersonal relationships. Individuals with average scores exhibit a moderate level of emotional intelligence. They may possess some skills associated with high emotional intelligence but struggle in certain areas. Those with low scores may have

difficulty recognising, understanding, or managing their own emotions or those of others, leading to challenges in communication, relationships, and decision-making.

Table 1. Cumulative emotional quotient

	Participants before using the EQ.app	Participants, after 2-3 months of using EQ.app
Low level of EQ	81%	13%
Average level of EQ	8%	36%
High level of EQ	11%	51%

The test results obtained immediately after downloading the app showed that most respondents (81%) had a low level of EQ, 8% had an average level, and 11% had a high level.

According to respondents' test results after using the app, the share of those with low emotional intelligence decreased by 68 percentage points. The share of those with an average level increased by 28 percentage points, and the share of respondents with a high emotional intelligence increased by 40 percentage points. After using the app, most participants fell into the “high EQ” category. This suggests that our methodology can be effective in helping all users, regardless of their starting EQ score.

According to Hall’s test scales, we analysed the emotional intelligence indicators of every respondent.

We used the following indicative emotional intelligence development scores for the general interpretation of the indicators:

- up to 7 points – low;
- 8-13 points – average;
- 14 and more – high.

Table 2. Hall’s test scales before using the EQ.app:

	Low	Average	High
Emotional awareness	71%	13%	16%
Managing your emotions	78%	11%	11%
Self-motivation	65%	12%	23%
Empathy	74%	12%	14%
Managing the emotions of others	77%	10%	13%

Table 3. Hall’s test scales after using the EQ.app:

	Low	Average	High
Emotional awareness	12%	35%	53%

Managing your emotions	10%	48%	42%
Self-motivation	16%	39%	45%
Empathy	10%	45%	45%
Managing the emotions of others	11%	42%	47%

After using the EQ app, there was a significant shift in the emotional intelligence scores of the participants. The most striking observation is the decrease in the percentage of individuals with low scores across all five scales. This indicates that the app has been highly effective in improving emotional intelligence. There is a substantial increase in the percentage of individuals with high scores on all scales. This suggests that the app has helped users develop advanced emotional intelligence skills. The most significant improvement is seen in emotional awareness, with a 53 percentage points increase. This indicates that the app has effectively helped users identify and understand their emotions. The substantial increase in high scores for managing emotions, self-motivation, empathy, and managing the feelings of others suggests that the app has been effective in helping users develop these crucial skills. The app's focus on practical exercises, interactive tools, and personalised feedback seems to have positively impacted the participants' ability to recognise, understand, and manage their emotions.

To explore the effect of frequency of use on improving Hall test scores, we selected only those respondents who used the application for 2-3 months and made the transition to a higher-scoring group – from the Low group to the Average group, from the Average group to the High group – and analysed their user behaviour. To compare the results, we looked at the frequency of people using the application who hadn't transitioned to the next group. Among them, 41% used the application once or less, 48% used it twice a week, and 11% used thrice or more.

*Table 4. Correlation between the EQ of participants who made the transition to higher-scoring groups after using the EQ.app and the frequency of using it:*

	Once a week and less	Twice a week	Three times a week and more
The transition from Low to Average	18%	56%	26%
The transition from Average to High	11%	61%	28%

A more significant proportion of respondents used the app 2 times a week or more than the control sample. Based on these data, it can be concluded that more intensive use of the application affects the effectiveness of emotional intelligence development.

To evaluate the effectiveness and impact of the clique thinking methodology on information assimilation in EQ.app, we developed a questionnaire that consisted of 10 open-ended questions. We organised the responses into categories to analyse the data.

Table 5. Questionnaire to assess the effectiveness of EQ.app:

	1. What aspects of the EQ.app do you like?
I don't spend a lot of time on learning	22%
Clarity and brevity of information	24%
Visual content	13%
I don't feel bored	17%
I can learn on the go	24%
	2. What aspects of the EQ.app do you dislike?
It isn't easy to understand some complex topics	21%
I forget information and have to go through the same topics again	16%
I lack videos	19%
I lack tests	21%
I lack gamification	23%
	3. What sparks your interest the most while using the EQ.app?
Exercises	27%
Emotions diary	23%
Short theories	34%
Emotional regulation tips	16%
	4. How often do you return to previously learned information on the EQ.app?
Never	17%
Less than once a month	30%
Once a month	35%

More than once a month	18%
	5. Do you need further research topics after learning about the EQ.app?
Yes	14%
No	54%
Sometimes	32%
	6. How often do you use the knowledge you have gained in practice?
On daily basis	48%
Several times a month	26%
Once a month	10%
Once in several months	16%
	7. Do you feel overwhelmed by the amount of information using the EQ.app?
Yes	17%
No	59%
Sometimes	24%
	8. How would you evaluate the depth of knowledge gained while using the EQ.app?
Very deep, detailed	68%
Average	22%
Light, on the surface	10%
	9. In what area of your life have you noticed positive changes after using the app?
Professional growth	14%
Relationships with colleagues/business partners	14%
Relationship with a partner	17%

Relationships with friends	29%
Relationships with family	22%
I have not noticed any changes	4%
10. What motivates you to continue using the EQ.app?	
I can see positive changes in my life	43%
I get a lot of helpful information	19%
It's easy and fun to use the app	38%

#### *Aspects of the EQ.app that respondents like*

Users prioritise clear and concise information (24%), highlighting the importance of straightforward explanations within the app. A significant portion (17%) appreciate avoiding boredom, suggesting the app effectively keeps them engaged. This indicator might indicate that one of the features of the clip thinking methodology - attracting attention and avoiding boredom - is effectively applied in the EQ.app. Additionally, it is one of the objectives we have been trying to achieve - creating a tool that would use a new approach to improving emotional intelligence instead of gaining knowledge from bulky academic sources. 24% value the ability to learn "on the go," demonstrating a preference for mobile learning opportunities. While clarity of information is valued (24%), visual content comes in third (13%), suggesting a potential preference for a balance between text and visuals. Infographics can be one of the means for delivering information via the application. Users also appreciate features that minimise learning time, suggesting a desire for efficient learning experiences.

#### *Aspects of the EQ.app that respondents don't like*

The answers to this question indicate unrealised aspects of using clip thinking in the application and highlight their importance to the respondents. The complexity of some topics might still be a barrier for 21% of users. Therefore, there is a need for improved clarity. 16% of users reported forgetting information, suggesting the app may benefit from features that enhance knowledge retention. Clip thinking is characterised by rapid information consumption, switching users' attention from one piece of information to another. The combined response (19% + 21%+23%) regarding the lack of videos, tests, and gamification suggests users prefer learning complex topics through interactive exercises. Therefore, adding knowledge retention features, preferably gamification, video, and test formats, will make the application more effective. At the same time, integrating gamification should be balanced to enhance learning, not become a distracting element.

#### *Sources of interest*

The highest response for short theories (34%) highlights a preference for bite-sized learning modules and underlines one of the features of clip thinking - a preference for fragmented information. Interest in exercises (27%) indicates users value practical activities that allow them to apply their learning. A significant portion (23%) finds the emotions diary engaging, suggesting interest in exploring and understanding their emotions. Providing additional resources or interactive exercises related to emotional regulation tips (16%) could deepen user understanding and application. The spread of interest across multiple features suggests a preference for a well-rounded approach with a mix of activities and knowledge.

### The need to revisit previously learned information

One of the effectiveness indicators we focused on was the need to revisit previously learned information. This question aims to check if presenting information using the clip thinking methodology allows the respondent to understand it quickly and profoundly. The answers of 17% of respondents suggest that they don't need to repeat it to remember the knowledge they get. The answers of users who revisit information less than once a month (30%) and once a month (35%) indicate a desire for spaced repetition or refresher opportunities. Those who revisit previously learned topics more than once a month (18%) could benefit from implementing spaced repetition techniques, providing summaries of key points, or offering prompts to revisit issues to improve the learning process.

### Information sufficiency

One of the objectives of developing the EQ.app was to create a source of information on emotional intelligence to help users get all the necessary knowledge in one place. Consequently, we needed to check whether the respondents got enough information while using it. When answering the question about the information sufficiency of the EQ.app, a majority (54%) felt no need for further research, indicating the app effectively addresses their initial learning goals. A significant portion (32%) sometimes feel the need for further study, suggesting the app sparks interest in a more profound exploration of specific topics. 14% of respondents need access to additional resources for further exploration. We can further explore the issues that might need more in-depth information coverage to make EQ.app a rounded source of emotional intelligence knowledge.

### Practical application

We needed to explore whether the respondents could use the theoretical knowledge they get in practice, as it is one of the key indicators of EQ.app's effectiveness. Nearly half of the users (48%) apply learned knowledge daily, indicating that EQ.app effectively equips users for practical application. A significant portion (36%) apply knowledge several times a month, demonstrating the app's effectiveness in fostering consistent use. While less frequent, (16%) apply knowledge once in several months, suggesting the app provides valuable insights that are occasionally relevant. The answers indicate that the application offers helpful information for respondents' daily lives. The users seem to engage with the app's content fully. At the same time, understanding reasons for less frequent applications (36%, 16%) could reveal areas where the EQ.app could provide additional support or resources.

### The amount of information provided

The clip-thinking methodology suggests providing information in short fragments that are easy to process. However, there is a risk of rapid information consumption and overusing the benefits of this methodology. We wanted to explore how users evaluate the amount of information available on the application. A comfortable majority (59%) doesn't feel overwhelmed by information, suggesting the app effectively presents content in a digestible format. This answer indicates that the app's content aligns well with clip-thinking preferences for manageable chunks. 24% of users sometimes feel overwhelmed, potentially indicating instances where the information density surpasses their preferred bite-sized format. This response aligns with clip thinking patterns, where users might encounter information overload when faced with larger chunks of material.

### The depth of gained knowledge

The question about the depth of knowledge aimed to explore the subjective evaluation of content quality provided on the app. Clip thinking might cause some users to underestimate the actual depth of information due to a preference for easily digestible content. We wanted to check if using the clip thinking methodology created the impression of "on the surface, superficial" information in respondents' perceptions. Most (68%) feel the app provides very deep or detailed knowledge, suggesting the content goes beyond superficial details. The "average" response (22%) could be influenced by clip thinking, with

users interpreting well-structured, concise content as "average" depth. Clarity and structure, often preferred by clip thinkers, might be misinterpreted as a lack of depth when they facilitate understanding of complex concepts. Implementing tiered learning paths could address potential misunderstandings. Users who perceive depth (68%) can engage with advanced modules, while others can progressively build understanding.

#### *Positive changes*

We also wanted to explore the effectiveness of the EQ.app by asking the respondents about the specific areas of their lives that improved after they started using the application. Only 4% of the respondents replied that they noticed no positive changes. This might highlight the need for further analysis to understand why the app might not benefit everyone equally. The rest of the users noticed positive changes in professional and personal relationships, aligning with clip thinking's preference for short-term rewards. The high percentage (29% + 22%) for relationships with friends and family suggests the app effectively impacts interpersonal dynamics, a key aspect of emotional intelligence. The 14% reporting professional growth aligns with clip thinking's focus on practical applications and tangible outcomes. The spread across relationship categories (14%, 17%, 29%, 22%) indicates the app's versatility in improving emotional intelligence in various contexts. It also suggests individual factors like personality or initial EQ levels influence the degree of change. The app's focus on practical benefits (professional growth, relationships) aligns with clip thinking's preference for tangible results. While short-term changes are evident, further research could explore the long-term impact on relationships and overall well-being.

#### *What motivates you to continue using the EQ.app?*

After using the EQ.app for 2-3 months, we wanted to explore the respondents' motivational factors and learn the app's key features that maintain their interest. The top response (43% - positive changes) aligns with clip thinking, where users value immediate and tangible benefits. As the previous questions showed, the respondents could apply and benefit from the theoretical knowledge they gained in practice. The "easy and fun" response (38%) suggests the app caters to clip thinking by making learning enjoyable and readily accessible.

### **Discussion**

Emotional intelligence plays a crucial role in increasing the quality of life, particularly when managing stress during conflict and uncertainty, like the war in Ukraine. EQ may help people feel able to deal with difficult events [27] and identify and understand their own emotions, including fear and anxiety, which allows for better management and coping strategies. By understanding personal triggers, individuals can anticipate and prepare for stressful situations. Emotional intelligence is often viewed as skills that help process emotional-related information [28] and regulate emotions effectively, preventing people from being overwhelmed by stress. Specific moods facilitate particular kinds of thought [29], which means the ability to choose the most beneficial type of thinking under the given conditions. Consequently, people can manage the situation better and have better control over it, experiencing less stress.

Another feature of emotional intelligence that helps to adapt to a stressful environment is empathy – understanding the emotions and experiences of other people - significantly when aggressive external factors such as war, changes in political elites, and natural disasters dominate - as it can reduce feelings of isolation and loneliness. People with high levels of EQ can build strong support networks with friends, family, or community members, providing emotional support and reducing stress. This also applies to the younger generation, as students with high emotional intelligence are better at managing stressful

conditions than those with low scores. [30] Strong communication skills, fostered by EQ, can help people express their feelings, seek support, and resolve conflicts effectively. It is also valuable in developing resilience and returning from challenges. In addition, EQ allows people to see the bigger picture and understand the context of social pressure from external factors, reducing feelings of helplessness and hopelessness. Finding meaning and purpose in difficult situations is essential for maintaining faith, hope, and motivation.

Despite the relevance and significance of emotional intelligence in today's reality, finding a source of information with quick access and easy-to-understand content is still challenging. Modern life necessitates a nuanced approach to information processing. While clip thinking presents challenges in education due to shortened attention spans, it also offers opportunities for innovative teaching methods that leverage its positive aspects. The information overload of the digital age necessitates adaptation, and clip thinking can be a valuable tool in managing vast amounts of data, including applying it to improve emotional intelligence. As our previous research study established, there is a demand for mastering emotional intelligence skills and no resources that could fully meet that need. The vast amount of information available on emotional intelligence can be overwhelming and challenging to navigate. The application based on the clip thinking methodology prioritises practicality and accessibility and uses the method of clip thinning to make knowledge on emotional intelligence widely available. According to our findings, most respondents (59%) do not find the information on the application overwhelming and use it daily (48%). Moreover, 38% of respondents state that using the application is easy and fun. They do not experience the lack of motivation that is often the case of complex studying processes.

Access to quality resources, such as books, workshops, or online courses on emotional intelligence, can be limited for some individuals, especially during war or other external stressors. Modern society has busy schedules and may struggle to allocate time for learning and practising emotional intelligence skills. According to the results of this research study, EQ.app's design and content seem to align well with the principles of clip thinking, leading to positive user experiences. The application effectively presents information in short, digestible portions, making it easier for users with clip-thinking styles to absorb and retain information. It also provides interactive elements, practical exercises, and clear explanations, which can benefit those with short attention spans. According to our analytical data, respondents spent up to 20 minutes per 1 session on EQ.app up to three times a week to improve their EQ level. It allows users to quickly gain the information they need within a short period.

Our research study shows that apart from making the information from academic sources accessible and understandable, the clip thinking methodology used in the EQ.app helps respondents overcome other obstacles to improving their emotional intelligence. One such obstacle is a common misconception that emotional intelligence is an innate trait, similar to IQ, that cannot be learned or developed. This misconception can lead to a sense of helplessness and discourage individuals from seeking to improve their emotional skills. Our research study highlights the progress of those using EQ.app regularly for one year and shifted to those with higher EQ levels. Clip thinking is one of the practical approaches to personal EQ development. The application's focus on immediate benefits and positive outcomes can motivate users with clip thinking, who often seek quick rewards. Hall's test can serve as a tool showing users their progress. On top of that, there can be other instruments for users to monitor the dynamics of their EQ. Recognising and addressing these misconceptions is crucial for promoting emotional intelligence education and encouraging people to invest in personal and professional development. By understanding that emotional intelligence is a learnable skill, people can take proactive steps to improve their well-being and relationships.

One more obstacle we need to recognise is the fear of vulnerability. Many individuals hesitate to explore their emotions and vulnerabilities, fearing exposure to perceived weaknesses. This resistance can hinder the development of emotional self-awareness [31], a crucial component of emotional intelligence. Clip-based thinking offers a unique approach to addressing this challenge. By operating at a more

superficial level, clip-based exercises and activities can create a safe and gradual environment for self-exploration. This can particularly benefit individuals who are initially hesitant to delve into their emotions. By engaging in clip-based activities, individuals can gradually become more aware of their feelings and the factors that trigger them. This increased self-awareness can be a valuable first step in developing emotional intelligence. On top of that, all exercises and theories presented in the application have a scientific basis and are safe for people to use without anyone's guidance. Clip-based thinking allows individuals to regulate the depth of their exploration. They can engage in more superficial activities or gradually delve deeper into their emotions as they feel comfortable. This flexibility can help individuals to progress at their own pace and avoid feeling overwhelmed.

The next misconception that might stand in the way of EQ improvement is that it can be challenging to learn and apply emotional intelligence skills effectively without proper guidance and support. People may hesitate to seek help from experts to improve their emotional intelligence due to a fear of vulnerability. This hesitation can lead to procrastination and delay in seeking guidance. Using an application can be easier for them as there is no personal contact with other people. The methodology of clip thinking can gently guide such individuals through the development process and encourage them to take initial steps towards improving their emotional intelligence without feeling overwhelmed or exposed. The findings show that adding gamification elements to the EQ.app can motivate users and help them overcome inner resistance.

### **Implications for Future Research**

Continued longitudinal studies with larger sample sizes can provide more robust evidence of the application's long-term impact on emotional intelligence. Additionally, expanding the measurement of outcomes to include broader indicators of emotional intelligence, such as workplace performance, relationship satisfaction, or mental health, could provide a more comprehensive understanding of the application's impact.

### **Conflicts of Interest**

The authors declare that they have no competing interests.

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