ИННОВАЦИОННЫЕ ТЕХНОЛОГИИ УПРАВЛЕНИЯ ОРГАНИЗАЦИЕЙ И HR-МЕНЕДЖМЕНТА

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TRAINING PROGRAMS IN TELEGRAM: EFFECTIVENESS AND CONVENIENCE OF USE

With the development of technology and digitalization, more and more companies are switching to an online training format for their employees. In particular, the Telegram messenger is becoming an increasingly popular tool for learning and knowledge sharing. Training programs in Telegram allow employees to study in any convenient place and at any convenient time, without wasting time traveling to training courses, seminars, and so on.

One of the main advantages of educational programs in Telegram is their accessibility and ease of use. Employees can receive information and assignments directly on their phone, tablet, or computer, and communicate with teachers and colleagues in real time. Thanks to this, the learning process becomes more interactive and engaging. In addition, Telegram training programs often provide personalized training, allowing each employee to choose the topics and pace of training depending on their needs and level of knowledge. This helps improve the effectiveness of training and increase employee motivation for self-development.

Employee training programs are comprehensive and systematic human resources strategies that focus on training a company's employees to update, recycle or improve skills and competencies [1].

Training programs play a decisive role in the process of training specialists in modern business. They help provide employees with the necessary knowledge and skills to perform their duties effectively. Firstly, training programs allow companies to adapt to changing market conditions and technological changes. The rapid pace of development of the modern economy requires constant updating of the knowledge and skills of workers, and training programs help companies stay one step ahead of competitors. Secondly, training programs strive to increase employee motivation and maintain their level of job satisfaction. Employees who have the opportunity to continually learn and grow feel more valuable to the company and more confident in their path to growth. This, in turn, leads to increased loyalty of managers and reduced staff turnover. In addition, training programs help the company maintain a high level of professionalism and competitiveness. Regular training allows employees to improve their skills and abilities, learn about new methods and technologies, which helps the company to be successful and effective in the market.

Telegram is suitable as a platform for training programs for several reasons:
- availability on various devices;
- ease of use;
- ability to create group chats and channels;
- sending files and media content;
- bots and possibility of automation;

- access control and privacy;
- integration with other services.

The 2 main methods of delivering training material through Telegram are dedicated channels and bots, however both can be used concurrently for the best result. Telegram channels serve as a robust platform for sharing training materials, updates and announcements. This ensures that all personnel has access to the same information, promoting consistency in training. The uniform dissemination of information eliminates discrepancies in the learning process, ensuring that all personnel is on the same page. Moreover, in-built chats in channels facilitate interaction among personnel fostering a collaborative learning environment. This interactive feature of Telegram channels encouraged active participation from personnel, enhancing their engagement and motivation. Telegram channels also offer the advantage of scalability. Unlike traditional training methods that may require significant resources to accommodate more participants, Telegram channels can easily scale to include an increasing number of personnel. This scalability makes it a cost-effective solution for organizations, especially those with a large workforce.

Furthermore, Telegram channels support a variety of content formats including text, images, audio and video. This multimedia support caters to different learning styles, improving the overall effectiveness of the training. Personnel can choose the format that best suits their learning preference, leading to improved comprehension and retention of information. Lastly, the asynchronous nature of Telegram channels allows personnel to access the training materials at their convenience. This flexibility can lead to increased participation as personnel can learn at their own pace and at a time that suits them best. This is particularly beneficial for organizations with personnel across different time zones.

As for Telegram bots, they can serve as an automatic system for providing training materials as well as assess the current level of knowledge through quizzes. The learning system will be implemented through on-demand training materials and quizzes for personnel assessment. The quizzes will follow spaced repetition. Spaced repetition is a learning technique that involves increasing intervals of time between subsequent review of previously learned material in order to exploit the psychological spacing effect. The concept of spaced repetition was first systematically investigated by Hermann Ebbinghaus in 1885, who developed a 'forgetting curve' (Figure 1) showing the exponential decay of information from memory when no effort is made to revisit that information. However, if the information is revisited, the rate of decay reduces, thus allowing for ever-increasing time intervals between repetitions to retain long-term memory of it. The essence of spaced repetition lies in its ability to enhance memory retention by leveraging our brain's natural memory patterns.
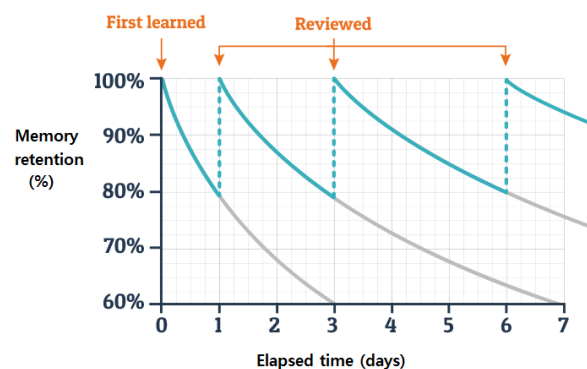

Fig. 1. The Forgetting Curve [3, p. 2]

A study conducted at the University of Leeds analysed the use of spaced repetition within a physics higher education thermodynamics module. The study found that students who engaged in a

spaced manner had an adjusted mean exam score of 70 %, compared to 64 % for massed usage and 61 % for non-usage. The spaced usage represents a positive effect size of 0.47 over non-usage, which is statistically significant. For the delayed test, the mean adjusted scores for spacers and non-users were 45 % and 34 % respectively [2].

However, there are also some drawbacks to spaced repetition. One of the main challenges is that it requires discipline and consistency, as the effectiveness of the technique decreases if the intervals are not followed strictly A companies Telegram bot neglects this problem by forcing people to take quizzes. Additionally, it may not be suitable for all types of learning, as it is most effective for factual and declarative knowledge, and less so for complex concepts that require deep understanding.

Implementing spaced repetition through Telegram quizzes can be an effective way to enhance personnel training. Telegram bots can be programmed to send quizzes at increasing intervals based on the individual's performance. For example, if an individual answers a question correctly, the bot could increase the interval before the question is asked again. Conversely, if the question is answered incorrectly, the bot could decrease the interval. This allows for a personalized learning experience that adapts to the individual's learning pace and performance. Furthermore, the use of quizzes adds an element of interactivity and engagement to the learning process, which can enhance motivation and retention. Telegram has an in-built feature of an explanation that pops up after the person selects an answer, either wrong or correct.

The organisation's Telegram ecosystem can be organised with one channel for all employees, providing essential information and announcements and two bots: one for HR manager and one for personnel. The manager's bot will have the possibility to upload materials, create quizzes for specific group of employees (departments for instance), control the progress of them by employee, quiz or specific question. Personnel bot on the other hand can access materials posted by managers, take quizzes and take self-assessment. The superiority of Telegram bots over other conventional methods of delivering such training is the fact that telegram bots are versatile and can be programmed in any way; the official documentation is presented in a clear way and libraries are easily available for all common programming languages. Once the programming is finished, HR managers take the path presented in the Figure below:

Fig. 2. User path for HR managers

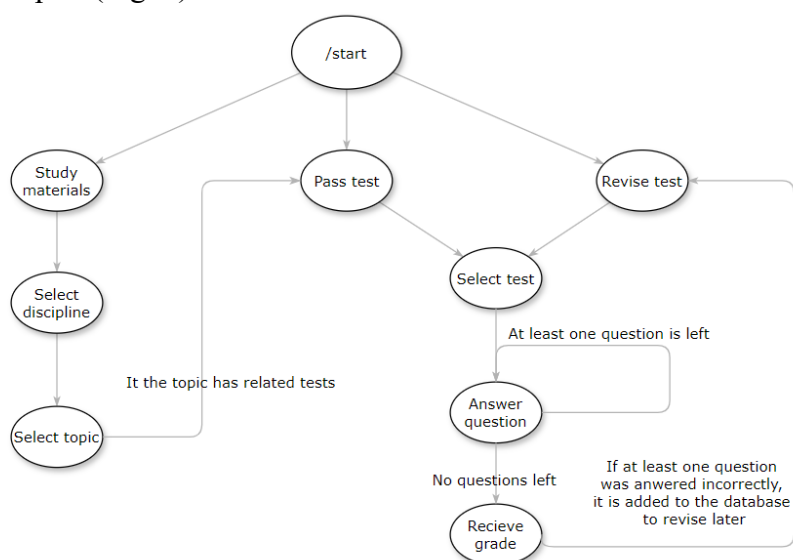The user's path is simpler (Fig. 3).

Fig. 3. User path for personnel

Once a user answer question incorrectly, it's flagged, and will appear sooner in next quizzes On the contrary, if on the first try the person answers correctly and the question is marked as easy it my never appear again.

In conclusion, Telegram is a multifunctional platform that can be used for training and knowledge exchange. In recent years, more and more people are turning to the Telegram messenger to receive educational content, training courses and other educational materials. The material is most successfully reinforced through reading/viewing the educational material, passing non-major tests, including repeated ones at increasing time intervals.

To successfully use Telegram as a learning platform, the following is recommended:

1. Creation of structured and high-quality educational materials that will be interesting and useful to students;

2. Organization of groups and training channels for interaction and discussion of materials;

3. Creation and administration of bots to check the level of knowledge of staff;

4. Providing opportunities for students to receive feedback;

5. Creation and implementation of a mechanism for the need to perform tests;

6. Regular updating and improvement of training materials and methods;

7. Reinforcement of material through spaced repetition;

8. Active interaction with students, motivation and support in the learning process;

9. Development of penalties in case of failure to complete tests and their implementation.

Thus, usage of Telegram as a platform for training has its own number of advantages, and with proper organization and planning of training programs, effective results can be achieved. It is also important to remember the need for continuous improvement and adaptation to new requirements and needs of students.

References

1. Employee training programs: definition and how to develop them [Electronic source]. – Mode of access: https://smowl.net/en/blog/employee-training-program/. – Date of access: 16.04.2024.

2. Voice, A. Spaced Repetition: towards more effective learning in STEM [Electronic resource] / Allison Voice, Arran Stirton. – 2020. – Mode of access: https://files.eric.ed.gov/fulltext/ EJ1241511.pdf. – Date of access: 16.04.2024.

3. Chun, Bo Ae The Effect of Flipped Learning on Academic Performance as an Innovative Method for Overcoming Ebbinghaus' Forgetting Curve [Electronic source] / Bo Ae Chun, Hae Ja Heo. – 2018. – Mode of access: https://www.researchgate.net/publication/324816198. – Date of access: 16.04.2024.