

Learner's Intrinsic Motivation for E-learning Madhumita Baidya* and Priyanka Das**

Abstract

Intrinsic motivation is a crucial concept in developmental psychology. This type of motivation pushes individuals to foster curiosity and active engagement in new activities. It is driven by own interest, satisfaction and necessity. These factors create genuine interest among students. Intrinsic motivation has significant impact on E-learning platforms to make teaching learning process more effective, engaging and sustainable learning. On the other hand, E-learning is the significant and essential component of modern education where it plays a lead role to prepare individuals with digital expertise for future. The main focus of the paper is to discuss about the influencing factors of intrinsic motivation, innovative E-learning tools and the importance of intrinsic motivation to enhance e-learning capacity.

Key words: E-learning, Effectiveness, Intrinsic motivation, E-Learning tools, Quality Education.

Intrinsic motivation plays a vital role especially in the field of education and driving students to learn and engage with academic materials for the personal interest and satisfaction rather than external pressure or rewards. According to Mendoza et.al. (2023) "The indirect impact of intrinsic motivation on task performance, showing that intrinsic motivation requires a means to improve performance". It is very essential for promoting academic success and encourage learners to keep a love of learning. In the era of digitalization, intrinsic motivation is a crucial thing for E-learning success, as it drives learners to actively engage with various online learning platforms and try to understand the online content. Various study found that e-learning take a significant role to make learning more effective and engaged. but user adoption and long-term engagement with the system remain surprisingly low (Lee, 2010). Intrinsic motivation, interest, enjoyment, passion and self-efficacy are the essential factors for the long-term engagement of with any technical learning system. It is very crucial to understand learning materials designed to boost learners' engagement, foster self-regulation, improve learning outcomes and to enhance the link between e-learning and motivation. Garris et al. (2002) state that educationists are examining the role of game-like features in enhancing student motivation and learning. Without intrinsic motivation, it is very challenging to provide e-content to the learners.

Intrinsic Motivation

Motivation is the driving force behind achievement and success. It stems from a sense of belonging and purpose, empowering individuals to strive for excellence. By understanding and enriching motivation, we can enhance our potential, overcome any difficulties or challenges, and achieve our goals, leading to greater fulfilment and well-being. Students' internal drive and passion for learning is a strong indicator of their likelihood to participate activity and enthusiastically in academic activities (Malik, et.al. 2020). Some recent studies shows that internal motivation, driven by personal interest and satisfaction, is more effective in achieving success than external rewards or pressures. Intrinsic

motivation is a behaviour which is driven by internal desires. It arises from within the individual without external forces like rewards and praise. Intrinsic motivation directly and indirectly influences learners excellence in the field of education. According to Deci and Ryan, (2000) "Intrinsic motivation is defined as the doing of an activity for its inherent satisfaction rather than for some separable consequence. When intrinsically motivated, a person is moved to act for the fun or challenge entailed rather than because of external products, pressures, or rewards." They develop the concept of intrinsic motivation.

Factors That Influence Intrinsic Motivation

Autonomy: Autonomy is a factor that enhance intrinsic motivation by granting individuals control over their learning, decisions, and actions. It fosters a sense of responsibility, self-directed learning, and creativity, leading to increased motivation, engagement, and satisfaction. Autonomy include freedom to choose, self-regulation, decision-making authority, sense of ownership, and independence. By embracing autonomy, individuals can gain their actual potential, cultivate intrinsic motivation, and achieve greater success and well-being.

Interest: Interest is the one kind of personal factor which drives intrinsic motivation, enhance genuine curiosity, passion, and enthusiasm. It helps learners to fuel exploration, engagement and unlock potentials which are crucial thing for deep learning and to set meaningful goals. It also helps to pursue learner's hobbies, engaging in personal significant activities and to explore new topics. Thus, interest is leading to increased satisfaction and achievement.

Competence: Competence is a vital factor that fuels intrinsic motivation, encompassing the sense of effectiveness, skill, and mastery in performing tasks, achieving goals, and overcoming challenges. Competence makes individuals capable to solve complex problems, mastering in new skills or knowledge and set mindful goals. Characterized by self-efficacy, skill development, mastery experiences, confidence, and effectiveness, competence enables people to feel capable and adept, achieve success and progress, and demonstrate expertise.

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Challenge: Challenge is the most powerful factor that significantly influences intrinsic motivation, referring to the optimal level of difficulty and complexity that stimulates engagement, motivation, and growth. Challenge helps learners to encourage in learning, create interest, curiosity, learning new skills and overcoming new skills. It also fosters resilience and perseverance, enhances motivation and engagement, promotes a sense of accomplishment and ultimately leading to a more fulfilling and satisfying experience.

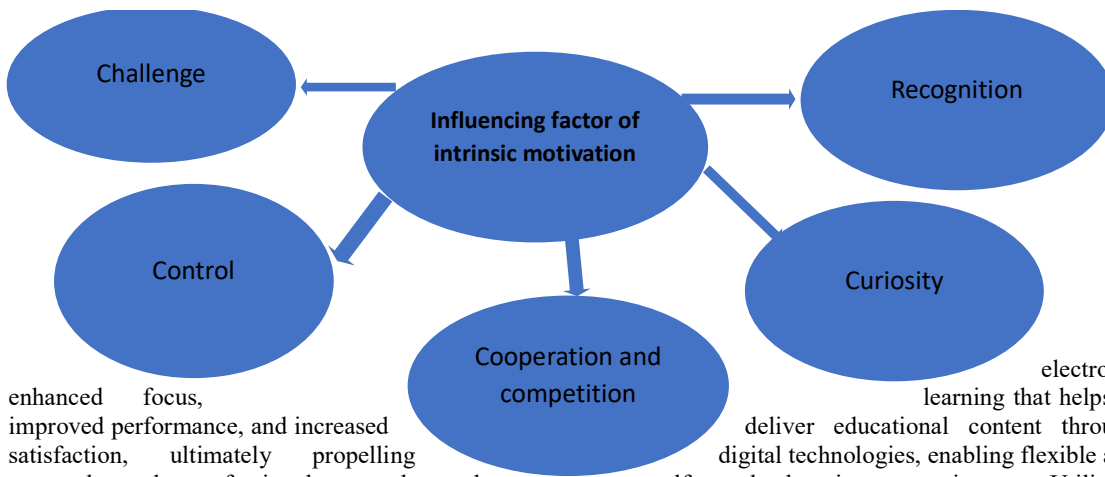
Goal setting: Goal setting is an important psychological factor that harnesses the power of cognitive processes, motivation, and self-regulation to elevate performance and achievement. As individuals set and work towards their goals, they experience

Self-efficacy: Self-efficacy is the confidence in one's abilities, influencing factor of intrinsic motivation by enhancing motivation, persistence, autonomy, enjoyment, and challenge-seeking. Self-efficacy boosts confidence, competence and resilience and it is driving individuals to tackle difficulties or obstacles and achieve goals. Individual's high level of self-efficacy enhances motivation and engagement, increased persistence and resilience, and a greater sense of autonomy and self-directed learning. It also plays a crucial role to determine intrinsic motivation by shaping task-specific, situation-specific, and generalized confidence.

E-learning

E-learning, also known as online learning or

According to Malone and Leeper influencing factors of intrinsic motivation:



enhanced focus, improved performance, and increased satisfaction, ultimately propelling personal and professional growth and development. Through the specific, achievable, and meaningful objectives, individuals enhance the level of their motivation self-efficacy, confidence and cultivate resilience and perseverance.

Social support: Social support is an environmental influencing factor that encompasses external relationships and interactions providing emotional, informational, and instrumental assistance. This social support network, comprising family, friends, peers, community and social networks also influences behavior, well-being, and motivation of an individuals. Social support encourages positive habits, fosters resilience, reduces stress, and promotes healthy behavior of learners.

Intrinsic regards: Intrinsic regards refer to personal, internal motivations driving behavior, satisfaction, and engagement. Characterized by autonomy, enjoyment, curiosity, challenge, personal growth, interest, and satisfaction, intrinsic regards are self-directed, internally motivated, and voluntary. They encompass activities pursued for inherent value, pleasure, or fulfilment, such as hobbies, personal goals, learning, volunteering, or creative expression, as outlined in Self-Determination Theory and Intrinsic Motivation Theory.

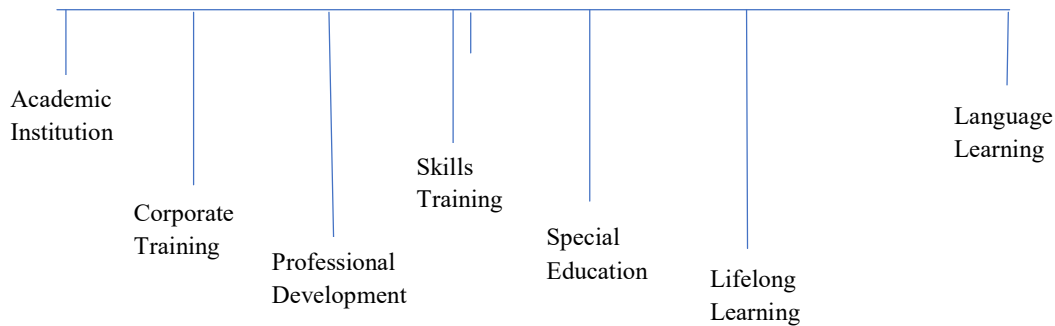
electronic learning that helps to deliver educational content through digital technologies, enabling flexible and self-paced learning experiences. Utilizing platforms such as the internet, intranet, extranet, mobile devices, learning management systems, and multimedia resources, e-learning provides accessible, interactive, and cost-effective education anywhere, anytime. There are various types of e-learning include asynchronous and synchronous learning, gamification, blended learning, microlearning, mobile learning and simulation-based learning. E-learning enhances students' enthusiasm for learning, encourages active participation, and boosts their focus and engagement in educational activities (Hamad, 2022). This e-learning approach facilitate numerous benefits, including increased accessibility, improved flexibility, personalized learning, cost savings enhanced engagement, scalability, and data-driven insights. Some several studies explore that e-learning has a positive impact on students, fostering increased satisfaction and motivation and enhancing their overall learning experience (Fryer & Bovee, 2016., and Yilmaz, 2017). E-learning applications provide flexible environment to academic institutions to held corporate training, professional development, skills training, language learning, special education, and lifelong learning. There are some popular e-learning platforms include Massive Open Online Courses

(MOOCs), Learning Management Systems (LMS), online course platforms like Udemy and Coursera, and virtual learning environments (VLEs) in the field of education. E-learning has transformed the education landscape, making high-quality learning experiences more accessible, flexible, and effective for individuals worldwide.

collaboration, real-time grading and feedback, flexibility, automated workflow and data storage security. Canvas has become a popular e-learning tool among educational institutions in worldwide and it empowers educators to deliver effective online learning experiences.

Coursera: Coursera is a platform of massive open

Applications of e-learning



Tools of e-learning

E-learning tools means digital resources that provide access through various electronic devices like computers, smartphones, and tablets to organise training and enhance knowledge. These tools help to organise online courses, virtual classrooms, interactive simulations, learning management systems, video conferencing tools, gamification platforms, mobile learning apps, and collaborative platforms. Now a days, there are numerous benefits of E-learning tools in the field of education including increased accessibility, flexibility, personalized learning, cost-effectiveness, making learning more convenient, efficient, and effective. E-learning tools streamline large-scale workplace training, ensuring all employees access crucial information. Some popular e-learning tools are discussed below:

Moodle: Moodle is a free and open-source learning system that enables educators to create and manage online courses, training programs, and educational websites. Some key features of Moodle are course creation and management, user authentication and enrolment, discussion forums, assignment submission and grading, quizzes, content uploading, surveys, and reporting tools. Moodle makes learning process flexible, collaborative and cost-effectiveness. Moodle is widely used in the field of educational institutions, professional development, corporate training, online courses, and distance learning.

Canvas: Canvas is a one kind of cloud-based learning management system which was designed for educational institutions to organise, manage, and deliver online courses assignment. Some key features of canvas are course creation and management, assignment submission and grading, content uploading, surveys, discussion forums and quizzes. It facilitates some crucial benefits, including enhanced

online course that offers accessible, affordable, and flexible education. It provides a vast range of courses, specializations, and degree programs with the partnership of various top universities and organisations. It provides some benefits including high-quality education, flexible scheduling, affordable tuition, networking opportunities, enhanced career prospects, and personalized learning paths assignments, and provide certificates of completion. Coursera's web-based platform that also offers various courses in business, computer science, data science, arts, humanities, and more

Zoom: Zoom is a cloud-based video conferencing platform that enables individuals to held virtual meetings, online classes, and remote collaboration. Zoom was founded in 2011, it facilitates high quality video and audio, screen sharing, virtual meeting rooms, real-time messaging, and recording capabilities. This platform is very useful for those learners who belong to remote areas. It enhances collaboration learning, reduced travel costs, increase flexibility and improve productivity.

Google Meet: Google Meet is an another most popular video conferencing platform. Users require a Google account, internet connection, webcam, and microphone to use Google Meet with compatibility across Chrome, Firefox, and Safari browsers. It offers high-definition video and audio, virtual meeting rooms, screen sharing, real-time captioning and secure encryption. It increases flexibility and productivity, enhance collaboration and secure private meetings. Google Meet is ideal for e-learning applications such as virtual classrooms, remote student mentoring, virtual field trips, online lectures, and professional development.

Webex: Webex is a modified cloud-based video conferencing and collaboration platform that was

developed by Cisco Systems. It enables users to hold virtual meetings, online classes, training sessions, and remote collaborations securely and efficiently. Webex offers high-definition video and audio, screen sharing, virtual meeting rooms, real-time messaging, and recording capabilities. It is the most beneficial for remote communication and collaboration and organisation of large meetings and webinars.

Skype: Skype is a video conferencing and communication platform developed by Microsoft. Skype provides high quality video and audio calls, screen sharing, instant messaging, file sharing, virtual whiteboard, group video calls, and call recording. Skype is widely used in e-learning applications, such as virtual classrooms, remote student mentoring, virtual field trips, online language lessons, online lectures, and professional development.

Adobe Captivate: Adobe Captivate is a powerful e-learning authoring tool that enables developers to design, develop, and deliver interactive online courses, tutorials, and simulations. It provides some facilities such as interactive simulations, video integration, gamification, quizzes, and mobile-friendly designs. It also provides personalized learning and study plans which helps to improve retention and recall, engagement, and motivation. It is easy to access on web browsers and mobile devices, making learning convenient.

Quizlet: Quizlet offers various e-learning applications, such as vocabulary building, test preparation, subject-specific studying, language learning, professional certification, and other special learning needs of students. Now a days, it is a popular online learning platform and study app that offers a comprehensive range of digital study tools and resources. Quizlet has become a leading e-learning platform for effective and interactive learning experiences by providing real-time feedback and tracking.

Simulate Pro: Simulate Pro is a cutting-edge e-learning tool that enables creators to design, develop, and deploy realistic simulations for training and assessment. It makes the combination of interactive simulations, gamification and analytics to increase engagement and retention of learner. It also facilitates numerous benefits, including enhanced learner engagement and retention, improved problem-solving and decision-making skills, provide effective realistic training scenarios and personalized learning experiences. Simulate Pro enhances learner proficiency and organisational performance by providing immersive and interactive learning experiences.

SMART Board: SMART Board is a one kind of interactive e-learning tool that combines traditional teaching methods with digital technology. It is very useful for teachers and educators to create engaging, interactive lessons and presentations. It has sensitive display, interactive tools, collaboration features, multimedia capabilities, and integration with digital

resources. It provides users various facilities like, flexibility to write, draw, and provide digital interaction content, easy access of online educational content, and create, deliver, and assess lessons. This interactive tool is ideal for learners, special education instructors, corporate trainers, remote teams, and institutions seeking interactive learning solutions. It enhances student's engagement, collaboration, and academic achievement.

Microsoft Whiteboard: Microsoft Whiteboard is a digital learning tool that is capable to held real-time collaboration, brainstorming, idea-sharing and interactive lessons. It combines traditional whiteboarding with digital capabilities and fosters creativity, collaboration, and productivity in the field of educational and professional development. It provides flexible and accessible learning environment. Microsoft Whiteboard improves idea generation and brainstorming, enhances collaboration and teamwork, provides flexible and accessible learning environments and increases productivity and efficiency.

Importance of intrinsic motivation to enhance e-learning capacity

Intrinsic motivation is essential for e-learning because it:

1. Enhances engagement

Engagement is very essential for e-learning. Intrinsic motivation drives learners to participate, interact and engage actively with online content. Through the active engagement, e-learning experience become more interactive and effective which helps to improve learning outcomes and knowledge retention. Individuals driven by intrinsic motivation play a crucial role in face-to-face brainstorming sessions, as their genuine interest and passion foster innovative idea generation (Zhang X. et.al, 2020). It has a significant impact on learners' deed learning with the help of e-learning content.

2. Promote self-directed learning

Intrinsic motivation promotes self-directed learning and allowing learners to take ownership. Fostering autonomy in e-learning empowers learners to take control of their learning process, promoting self-directed learning and independence. It helps learners to motivate to manage learning, enhance decision-making abilities, develop essential self-directed learning skills and improve time management. Autonomy-fostering e-learning environments cultivate confident, self-sufficient learners and achieve academic success.

3. Increases retention capacity

Learners retain information in a better way when motivated by internal factors. Increasing retention is a critical aspect of e-learning. Increases of retention help learners to transfer knowledge to practical situations, develop problem-solving skills, solidify learning, enabling learners to retain information long-term, perform better

academically and leading to increased confidence by using e-learning approach. Thus, learner's retention significantly enhances their e-learning experiences.

4. **Motivate to acquire in-depth knowledge**

Intrinsic motivation leads to deeper understanding and application of knowledge. Promoting deep learning in e-learning enables learners to comprehensively understand, integrate and apply knowledge which helps to make meaningful connections between concepts. Students' emotional connection with teachers significantly enhances their online learning engagement, with a stronger impact when they feel supported and valued by their instructors (Wang, 2022). It helps to enhance meaningful learning experience, enhance capability of inquiry-based learning, empowering them to think critically and develop analytical skills, apply knowledge in practical contexts and solve complex problems.

5. **Improving persistence**

Improving persistence in e-learning is very essential for helping learners to overcome obstacles, stay motivated, and complete courses. To achieve this, key strategies are employed, providing progress tracking and feedback, and incorporating engaging content and interactions, including setting clear goals and objectives. It also helps to improved academic performance, a strong sense of self-efficacy, empowering learners to persevere, boosted confidence, and achieve their educational goals. This kind of internal motivation is very essential to acquire e-learning experiences.

6. **Encourage individual to explore knowledge**

Encouraging exploration in e-learning fosters a culture of curiosity, creativity, and discovery, enabling learners to develop deep knowledge in subject matter. This is achieved through interactive strategies such as simulations, gamification, open-ended questions, and flexible navigation, virtual labs and field trips. As a result, exploration-based e-learning experiences enhance creativity and innovation, increase learner engagement and motivation, develop critical thinking and problem-solving skills, and promote a deeper understanding of complex concepts.

7. **Supports lifelong learning**

Intrinsic motivation sustains learners' interest toward lifelong learning by using e-learning. Pursuing lifelong learning enables individuals to continuously acquire new knowledge, skills, and competencies throughout their lives, adapting to evolving professional, personal, and societal needs. Lifelong learning is essential in today's ever-changing world, enabling individuals to stay relevant in personal interests and passions, foster creativity, innovation, and enhance overall quality of life through e-learning. Without internal motivation, it is impossible to be continue with flexible learning opportunities of e-learning.

8. **Reduces burnout**

Internal motivation reduces reliance on external rewards and decreasing burnout risk. Reducing burnout helps to enhance e-learning by increasing motivation, improving focus, and boosting retention. It helps to improve learner's time management capacity, reduce stress, and enjoy the learning experience. E-learning platforms can mitigate burnout through flexible pacing, supportive communities, regular breaks, interactive content, clear goals and promoting overall learner well-being and positive learning outcomes.

9. **Promotes self-efficacy**

Promoting self-efficacy is a vital aspect of enhancing e-learning experiences. Self-efficacy boosts confidence, motivation, and engagement by empowering learners to take control of their learning. By promoting self-efficacy, e-learning experiences become more effective, increasing learner autonomy, set personalized learning plans and fostering lifelong learning habits. Thus, self-efficacy helps learners to believe in their ability to succeed, foster a growth mindset, encourage for active participation, achieve their goals, and reach their full potential.

10. **Sustainable learning habits**

Intrinsic motivation plays a vital role in creating sustainable learning habits towards e-learning. Intrinsic motivation builds confidence by fostering a genuine interest in learning and encouraging self-directed exploration, and developing a growth mindset. Intrinsic motivation strategies, such as relevant content, interactive experiences, feedback, collaborative communication, gamification, personalized learning paths, promote autonomy and real-world applications, and flexibility. Through the nurturance of intrinsic motivation, learners develop into self-directed, lifelong learners, driven by a desire to learn and grow and e-learning experience become sustainable and effective.

Conclusion

Intrinsic motivation plays a significant role to acquire technological knowledge by promoting learners' curiosity, interest engagement and satisfaction. In the other hand technology also plays a vital role in enhancing intrinsic motivation in E-learning environment by providing interactive learning and personalized learning experience. So, it is very essential for educators and instructional designers to understand the factors which directly and indirectly effect the learner's intrinsic motivation and provide appropriate E-learning environments. Educator plays significant role to create suitable E-learning environment to empower learner to achieve their goals and get overall learning success.

References

- Deci E., Ryan R. (2000). *Intrinsic Motivation and Self-Determination in Human Behavior*. New York, Plenum Press; 3841237
- Fryer, L. K., and Bovee, H. N. (2016). Supporting students' motivation for e-learning: teachers matter on and offline. *The Internet and Higher Education*, 30, 21–29. doi: 10.1016/j.iheduc.2016.03.003
- Garris R., Ahlers R. & Driskell J.E. (2002) Games, motivation, and learning: a research and practice model. *Simulation & Gaming*, 33, 441–467.
- Hamad, A.L., Abouelnaga, H.M., Metwally, A.B.M., ShoShan, H., Moawad, N.F. (2022). The Importance Of E-Learning to The Students and Teachers. *Journal of Language and Linguistic Studies*, 18(2), 952-968.
- Lee, M.C. (2010). Explaining and predicting users' continuance intention toward e-learning: an extension of the expectation-confirmation model. *Computers and Education*, 54(2), 506-516.
- Malik, M. J., Ahmad, M., Kamran, M. R., Aliza, K., & Elahi, M. Z. (2020). Student use of social media, academic performance, and creativity: the mediating role of intrinsic motivation. *Interactive Technology and Smart Education*, 17, 403–415. doi: 10.1108/itse-01-2020-0005
- Mendoza, N. B., Yan, Z., & King, R. B. (2023). Supporting students' intrinsic motivation for online learning tasks: The effect of need-supportive task instructions on motivation, self-assessment, and task performance. *Computers & Education*, 193, 1-15.
- Wang, L. (2022). Student Intrinsic Motivation for Online Creative Idea Generation: Mediating Effects of Student Online Learning Engagement and Moderating Effects of Teacher Emotional Support. *Frontiers of Psychology*, 13, 1-13.
- Yilmaz, R. (2017). Exploring the role of e-learning readiness on student satisfaction and motivation in flipped classroom. *Computers in Human Behaviour*, 70, 251–260. doi: 10.1016/j.chb.2016.12.085
- Zhang, W., Xu, F., & Sun, B. (2020). Are open individuals more creative? The interaction effects of leadership factors on creativity. *Personality and Individual Differences*, 163, 110078, <https://doi.org/10.1016/j.paid.2020.110078>

Web sources

- <https://pressbooks.pub/learningenvironmentsdesign/chapter/malone-lepper-making-learning-fun-a-taxonomy-of-intrinsic-motivations-for-learning/>
- <https://www.bsolpk.org/21st-century-education>
- <https://www.coursera.org/enterprise/articles/what-is-professional-development>
- https://en.wikipedia.org/wiki/Lifelong_learning