

Learning and development culture, technology adoption, and change management strategies: Basis for a dynamic and positive learning environment framework

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Abstract

This study investigated the interconnected roles of learning and development culture, technology adoption, and change management strategies in creating dynamic and positive learning environments within universities. Focusing on top universities in Hunan Province, China, the research explored these elements through a descriptive design, surveying 400 teaching and non-teaching personnel. The study described the learning and development culture (opportunities for growth, collaborative environment, support), technology adoption (infrastructure, training, support, evaluation), and change management strategies (engagement, communication, resistance management). Key findings revealed general agreement among respondents regarding the presence and effectiveness of these elements within their institutions. Crucially, the study found a strong, significant relationship among these three factors. Based on these findings, a framework for fostering dynamic and positive learning environments was developed. This framework provides valuable guidance for universities seeking to enhance their learning ecosystems, promoting continuous growth and development by strategically integrating learning culture, technology, and change management. The study offers practical insights for university leaders and administrators aiming to cultivate thriving learning environments in the rapidly evolving higher education landscape.

Keywords: learning and development culture, technology adoption, change management, positive learning environment

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1. Introduction

The modern business landscape is characterized by constant technological disruption. To remain competitive, organizations must not only embrace new technologies but also ensure their workforce can effectively utilize them. This necessitates a learning and development (L&D) culture that fosters continuous learning and adaptability alongside a well-defined technology adoption and change management strategy. A culture of L&D prioritizes continuous learning and development for all employees. This fosters a growth mindset, where employees embrace challenges and view them as opportunities to improve. According to a 2018 report by Deloitte, organizations with a strong L&D culture experience 21.8% higher profitability compared to those with a weak L&D culture. Learning programs should cater to individual needs and learning styles.

The landscape of higher education is undergoing a significant transformation driven by the relentless pace of technological innovation. Universities across the globe are increasingly embracing technology to enhance learning experiences, improve operational efficiency, and prepare students for the demands of the digital workplace. Technology plays a crucial role in driving L&D initiatives. E-learning platforms, microlearning modules, and gamified learning experiences can deliver effective and engaging training at scale. However, successful technology adoption goes beyond simply acquiring new tools. Ensure the chosen technology is user-friendly and aligns with employee preferences. Complex interfaces can lead to frustration and hinder adoption rates. Integrate new L&D technologies with existing HR and learning management systems to streamline work-flows and improve data accessibility. Technology offers solutions for addressing the growing student populations in universities.

Universities are complex ecosystems constantly adapting to a dynamic world. By employing well-defined change management strategies, universities can navigate the complexities of transformation effectively. A clear vision, strong leadership, and active stakeholder engagement are essential for fostering a culture of continuous improvement and ensuring a successful transition towards a more dynamic and future-proof higher education institution. By employing well-defined change management strategies, universities can navigate the complexities of transformation effectively. A clear vision, strong leadership, and active stakeholder engagement are essential for fostering a culture of continuous improvement and ensuring a successful transition towards a more dynamic and future-proof higher education institution. A strong L&D culture fosters a willingness to learn and embrace new technologies. This, coupled with a strategic technology adoption plan, empowers employees to effectively utilize new tools. Finally, a robust change management strategy ensures a smooth transition and maximizes the benefits of technology implementation. By effectively integrating these three elements, organizations can create a dynamic and adaptable workforce that thrives in the ever-evolving technological landscape.

Chinese universities are undergoing a significant transformation in their approach to Learning & Development (L&D) culture, technology adoption, and change management strategies. The Chinese government actively promotes a culture of lifelong learning through policies and funding initiatives. However, a shift towards student-centered learning models is still in progress. Many universities emphasize skill development and employability, leading to a curriculum that prioritizes practical skills and industry certifications. While faculty development programs exist, equipping educators with effective L&D practices remains a challenge. Management Systems (LMS) are becoming increasingly prevalent, facilitating blended learning environments and centralized access to course materials. Domestic platforms like XuetangX offer free online courses, increasing access to education and fostering collaboration within China. The application of Artificial Intelligence (AI) in personalized learning or intelligent tutoring systems is still in its nascent stages. Change initiatives are often driven by government mandates or university leadership, with limited stakeholder engagement. The

emphasis is often on immediate outcomes, potentially hindering long-term cultural shifts or faculty buy-in. Transparency and clear communication about change goals and rationale can be limited, leading to resistance. Chinese universities have made significant strides in technology adoption and L&D infrastructure development. However, fostering a strong learning culture that empowers faculty and students requires continued efforts in: Equipping faculty with effective L&D practices and technology integration skills is crucial. Engaging stakeholders in the change process leads to stronger buy-in and smoother implementation. Developing a clear vision for a learning-centered culture and providing sustained support for faculty and students are essential for long-term success.

The researcher has a strong personal interest in the field of Learning & Development. The researcher sees that technology adoption and change management as crucial tools for fostering a dynamic and effective L&D environment.

Objectives of the Study - The study aimed to assess learning and development culture, technology adoption, and change management strategies to develop a dynamic and positive learning environment framework. Specifically, this study described the learning and development culture of the universities in terms of opportunities for growth, collaborative learning environment, and supportive environment; determined the level of technology adoption in terms of infrastructure, training, support and evaluation; assessed the change management strategies in terms of engagement, communication channels and resistance management; tested the significant relationship between learning and development culture, technology adoption and change management; and developed a framework for a Dynamic and Positive Learning Environment.

2. Methods

Research Design - The study employs a descriptive design to evaluate learning and development culture, technology adoption, and change management practices within universities in China. This design is suitable for systematically describing the state of affairs as it exists and exploring relationships between these variables without manipulating them. Correlation analysis was used to understand how these practices are interconnected and can inform the development of a management strategy framework for Chinese universities.

Participants of the Study - The participants of this study comprised teaching and non-teaching personnel from the top five universities in Hunan Province, China. A purposive random sampling technique was employed to ensure representation from various academic departments (e.g., humanities, social sciences, sciences, engineering) and administrative units (e.g., admissions, libraries, IT services). The researcher asked permission from the Human Resource Department to distribute the questionnaire. A total of 400 participated in this study, with a proportional allocation of participants from each stratum based on the size of each university. This approach captures a wide range of perspectives on the learning and development culture, technology adoption and change management strategies under investigation.

Data Gathering Instruments - The research instruments included structured questionnaires and checklists designed to capture quantitative data on the learning and development culture, technology adoption, and change management strategies employed by the universities. The questionnaire items were developed based on established scales and best practices in the field. For example, the learning and development culture questionnaire might include items that assess faculty and staff perceptions of opportunities for professional development, the availability of resources for continuous learning, and the overall emphasis on lifelong learning within the university. The technology adoption questionnaire explored faculty and staff experiences with different educational technologies, their level of comfort using these technologies, and the perceived impact of technology on teaching and learning. Similarly, the change management questionnaire investigated faculty and staff awareness of recent university reforms, their level of involvement in decision-making processes, and their perceptions of the effectiveness of change management strategies. All questionnaire items were measured using a Likert scale to assess agreement levels (e.g., strongly disagree, disagree, agree, strongly agree). The

questionnaire is self-made; this was constructed based on the previous related research literature, it has three part, the first part is intended to described the learning and development culture of the universities in terms of opportunities for growth, collaborative learning environment, and supportive environment; the second part is designed determined the level of technology adoption in terms of infrastructure, training, support and evaluation; the third part is assessed the change management strategies, in terms of engagement, communication channels and resistance management, each part contains five indicators .

In addition to the questionnaires, a standardized checklist has been used to corroborate the survey responses with actual documentation and practices observed within the universities. This checklist included items related to the availability of specific professional development programs, the types of educational technologies used in classrooms, and evidence of documented change management procedures. The questionnaires have been validated and pilot tested with a small sample of faculty and staff before being administered to the main study participants. Overall, the implemented measures enhanced the validity and reliability of the questionnaires. The content validity was ensured through expert review, and the internal consistency is confirmed by the high Cronbach's Alpha score. Utilizing multiple questionnaires with multi-item measurement and the Likert scale allows for a comprehensive and nuanced assessment of the target constructs.

Table 1

Reliability Results

Variables	No. of Items	α value	Interpretation
Learning and Development Culture			
Opportunities for growth	5	0.923	Excellent
Collaborative Learning Environment	5	0.927	Excellent
Supportive Environment	5	0.921	Excellent
Overall	15	0.924	Excellent
Technology adoption infrastructure, training, support and evaluation;			
Infrastructure	5	0.905	Excellent
Training	5	0.937	Excellent
Support and evaluation	5	0.929	Excellent
Overall	15	0.924	Excellent
Change management strategy			
engagement	5	0.927	Excellent
Communication channel	5	0.920	Excellent
Resistance management	5	0.927	Excellent
Overall	15	0.925	Excellent

Legend > 0.9 =Excellent; >0.8=Good; >0.7=Acceptable; >0.6=Questionable; >0.5=Poor; <0.5=Unacceptable

Data Gathering Procedure - By using a combination of questionnaires and checklists, the study gathered comprehensive and reliable data to address the research questions. An online questionnaire has been developed and distributed to the selected participants using a secure platform. The questionnaire was designed to be user-friendly and accessible on various devices. Following ethical guidelines, participants were provided with an informed consent form that explained the purpose of the study, the use of their data, and their right to withdraw at any point. University documents relevant to the study, such as project reports, strategic management plans, and progress tracking systems, were collected and analyzed. This process allowed for triangulation with questionnaire data and provided insights into the formal procedures for learning and development culture, technology adoption, and change management practices. Semi-structured interviews have been conducted with key university personnel, such as academic deans, department heads, and IT administrators.

Throughout the data collection process, the anonymity and confidentiality of participant data were ensured. By employing a combination of online questionnaires, document analysis, and interviews, the study gathered comprehensive data from various sources. This enriched data-set was analyzed using appropriate statistical methods in SPSS version 28, including the Shapiro-Wilk Test for normality and Spearman's rho for non-parametric correlation analysis. Addressing the potential non-normal distribution of the data ensured the validity and reliability of the findings, ultimately informing the development of an optimized management

strategy framework for Chinese universities.

Data Analysis - Weighted mean and rank were used to describe the learning and development culture of the universities in terms of opportunities for growth, collaborative learning environment and supportive environment; to determine technology adoption in terms of infrastructure, training, support and evaluation; and to assess the change management strategy, in terms of engagement, communication channel and resistance management. The result of Shapiro-Wilk Test showed that p-values of all variables were less than 0.05 which means that the data set was not normally distributed. Therefore, Spearman rho was used as part of the non-parametric tests to determine the significant relationship. All analyses were performed using SPSS version 28.

Ethical Considerations - The study adheres to the highest ethical standards of research. To ensure informed consent, participants received a detailed explanation of the study's purpose, data collection methods, and how their responses were used. This information was provided through an accompanying consent form presented before participants begin the online questionnaire. The consent form also clearly stated that participation is voluntary and that participants have the right to withdraw from the study at any point without penalty. Confidentiality and anonymity of participant data were maintained throughout the research process. All data were stored securely. Only aggregate results were reported, ensuring that individual responses cannot be traced back to specific participants. These measures ensure that participants feel comfortable and protected when providing their honest responses, contributing to the overall validity and integrity of the research findings.

3. Result and discussion

Table 2

Summary Table of Learning and Development Culture

Indicators	Weighted Mean	Verbal Interpretation	Rank
Opportunities for Growth	3.04	Agree	2
Collaborative Learning Environment	2.81	Agree	3
Supportive Environment	3.05	Agree	1
Composite Mean	2.97	Agree	

Legend: 3.50-4.00=Strongly Agree; 2.50-3.49=Agree; 1.50-2.49=Disagree; 1.00-1.49=Strongly Disagree

Table 2 reveals a generally positive perception of the learning and development (L&D) culture within the organization, with all the dimensions receiving an "Agree" rating. The highest-ranked indicator is "Supportive Environment", suggesting strong employee support for learning initiatives. The lowest-ranked indicator is "Collaborative Learning Environment", indicating a potential area for improvement in fostering peer-to-peer learning and knowledge sharing. Supportive Environment, ranks highest with a weighted mean of 3.05 and "Agree" as the verbal interpretation. This suggests that respondents perceive a generally positive and supportive learning and development environment within the organization. A strong supportive environment fosters a sense of belonging, security, and psychological safety. This can significantly impact employee well-being, reducing stress and anxiety, and increasing job satisfaction. When employees feel supported and valued, they are more likely to be motivated, engaged, and productive. A supportive environment encourages open communication, risk-taking, and continuous learning.

Reeve (2013) showed how agentic engagement functions as a proactive, intentional, collaborative, and constructive student-initiated pathway to greater achievement. The benefits of mentoring and contribution of early career professional development for doctoral students related to the rigors of the academy cannot be denied. Grönlund et al. (2017) highlighted that collaborative learning, when effectively implemented, goes beyond individual learning experiences. Through social interaction and the dynamic exchange of ideas, learners are empowered to develop deeper understanding, refine their thinking processes, and ultimately achieve higher levels of cognitive growth.

Table 3*Summary Table of Technology Adoption*

Indicators	Weighted Mean	Verbal Interpretation	Rank
Infrastructure	2.91	Agree	2
Training	2.97	Agree	1
Support and Evaluation	2.77	Agree	3
Composite Mean	2.88	Agree	

Legend: 3.50-4.00=Strongly Agree; 2.50-3.49=Agree; 1.50-2.49=Disagree; 1.00-1.49=Strongly Disagree

The overall "Agree" rating in Table 3 indicates a generally positive perception of technology adoption within the organization. Training" ranks highest, suggesting that the organization is prioritizing the development of employee skills and knowledge related to technology. Infrastructure" scores closely behind "Training," indicating a solid foundation for technology adoption with adequate hardware, software, and connectivity. Meanwhile, "Support and Evaluation" receives an "Agree" rating, it ranks lowest, suggesting a potential area for improvement. Several studies emphasize the critical role of training and professional development in successful technology integration. Zuckerman et al. (2017) directly examined this, highlighting that effective training and professional development are crucial for fostering teacher motivation and technology use. Hrastinski et al. (2015) further emphasized this, stating that ongoing professional development and support are essential for teachers to effectively utilize technology in their classrooms. This aligns with findings of Cuban (2016), which highlighted the importance of professional development, support, and recognition for teachers to effectively integrate technology into their teaching practices.

Table 4*Summary Table of Change Management Strategy*

Indicators	Weighted Mean	Verbal Interpretation	Rank
Engagement	3.01	Agree	1
Communication Channel	2.82	Agree	3
Resistance Management	2.85	Agree	2
Composite Mean	2.89	Agree	

Legend: 3.50-4.00=Strongly Agree; 2.50-3.49=Agree; 1.50-2.49=Disagree; 1.00-1.49=Strongly Disagree

Table 4 presents the summary table of change management strategy, agree rating across all dimensions indicates a generally positive perception of the organization's change management strategy. This suggests that the organization understands that effectively managing resistance requires engaging employees, establishing clear communication channels, and proactively addressing potential sources of resistance. Engagement ranks highest (3.01), suggesting that the organization effectively engages employees in the change process. This is crucial for successful change implementation as it fosters buy-in, reduces resistance, and increases employee ownership. This dimension likely includes indicators such as employee involvement in planning and decision-making, clear communication of expectations, and providing opportunities for feedback. The high ranking suggests that the organization effectively engages employees throughout the change process, fostering a sense of ownership and reducing resistance.

Communication Channels ranks second. This dimension likely includes indicators such as clear and consistent communication protocols, effective use of communication channels, and timely dissemination of information. The mid-ranking suggests that the organization has established communication channels, but there may be areas for improvement in terms of consistency, timeliness, and the clarity of messages. Resistance Management" ranks lowest. The agreement among respondents suggests that while the organization recognizes the importance of managing resistance, there may be areas for improvement in this area. This dimension likely includes indicators such as proactive identification and addressing of potential resistance, providing clear explanations for change, and recognizing and rewarding those who support change. While the organization acknowledges the importance of resistance management, the lower ranking suggests potential areas for improvement, such as: Insufficient proactive identification and addressing of resistance. Limited communication

of the rationale and expected benefits of change. Inadequate recognition and rewards for employees who support change.

Agreement on all dimensions of change management – Engagement, Communication Channels, and Resistance Management – signifies a comprehensive and proactive approach to managing change within the organization. This holistic approach can significantly enhance likelihood of successful change implementation, improve organizational agility, and create a more positive and supportive environment for change.

Table 5

Relationship Between Learning and Development Culture and Technology Adoption

Variables	rho-value	p-value	Interpretation
Opportunities for Growth			
Infrastructure	.707**	<.001	Highly Significant
Training	.442**	<.001	Highly Significant
Support and Evaluation	.400**	<.001	Highly Significant
Collaborative Learning Environment			
Infrastructure	.679**	<.001	Highly Significant
Training	.440**	<.001	Highly Significant
Support and Evaluation	.599**	<.001	Highly Significant
Supportive Environment			
Infrastructure	.316**	<.001	Highly Significant
Training	.264**	<.001	Highly Significant
Support and Evaluation	.277**	<.001	Highly Significant

Legend: Significant at p-value<0.01

Table 5 presents the relationship between learning and development culture variables and technology adoption, as assessed through rho-values and p-values. The findings indicate several highly significant correlations across different dimensions. The table demonstrates strong and statistically significant positive correlations between all dimensions of Learning and Development Culture and Technology Adoption. This indicates that a robust Learning and Development Culture is crucial for successful Technology Adoption. In terms of opportunities for growth, infrastructure exhibits the strongest correlation with a rho-value of .707 ($p<.001$), followed by training (.442, $p<.001$) and support and evaluation (.400, $p<.001$). This suggests that infrastructure plays a pivotal role in enhancing opportunities for growth in the context of technology adoption. Organizations should prioritize employee development by providing ample opportunities for growth, such as training programs, mentorship, and career development opportunities. This will not only enhance employee skills and knowledge but foster culture that supports and encourages adoption of new technologies.

For the collaborative learning environment, infrastructure again shows a strong correlation (.679, $p < .001$), followed by support and evaluation (.599, $p < .001$) and training (.440, $p < .001$). These results highlight the importance of robust infrastructure and evaluation mechanisms in fostering a collaborative environment conducive to technology adoption. Cultivate a culture of collaboration and knowledge sharing among employees. This can be achieved through initiatives such as cross-functional teams, knowledge sharing platforms, and peer-to-peer learning opportunities. A collaborative environment facilitates the effective sharing of knowledge and best practices related to technology use. Lastly, supportive environment demonstrates comparatively lower but still significant correlations with infrastructure (.316, $p < .001$), training (.264, $p < .001$), and support and evaluation (.277, $p < .001$). While all relationships are statistically significant, the lower rho-values indicate a weaker association between a supportive environment and technology adoption compared to the other variables. It is essential to create a supportive and encouraging work environment where employees feel comfortable experimenting with new technologies, seeking help when needed, and sharing their experiences with others. This can be achieved by providing adequate support, recognizing and rewarding successful technology integration, and fostering a culture of continuous learning.

This highlights the critical role of a strong Learning and Development Culture in facilitating successful Technology Adoption. By investing in employee development, fostering collaboration, and creating a supportive

environment, organizations can enhance employee skills, knowledge, and confidence in using technology, ultimately leading to more effective and efficient use of technology in achieving organizational goals. Zuckerman et al. (2017) specifically examined the relationship between teacher motivation, professional development, and technology use, highlighting the importance of a supportive learning environment and ongoing professional development opportunities for teachers. Hrastinski et al. (2015) further emphasized this by highlighting the crucial role of teacher training and support, including access to professional development opportunities and a supportive learning environment, in facilitating the effective integration of ICT in education.

Table 6*Relationship Between Learning and Development Culture and Change Management Strategy*

Variables	rho-value	p-value	Interpretation
Opportunities for Growth			
Engagement	.417**	<.001	Highly Significant
Communication Channel	.356**	<.001	Highly Significant
Resistance Management	.359**	<.001	Highly Significant
Collaborative Learning Environment			
Engagement	.301**	<.001	Highly Significant
Communication Channel	.366**	<.001	Highly Significant
Resistance Management	.302**	<.001	Highly Significant
Supportive Environment			
Engagement	.313**	<.001	Highly Significant
Communication Channel	.232**	<.001	Highly Significant
Resistance Management	.382**	<.001	Highly Significant

Legend: Significant at p-value<0.01

Table 6 illustrates the relationship between learning and development culture variables and change management strategy, with all associations found to be highly significant ($p < .001$). This demonstrates strong and statistically significant positive correlations (rho-values) between all dimensions of Learning and Development Culture and Change Management Strategy. This suggests that a robust Learning and Development Culture is crucial for effective Change Management. For opportunities for growth, the moderate correlation is observed with engagement ($\rho = .417$), followed closely by resistance management (.359) and communication channels (.356) with weak correlation. These results suggest that fostering opportunities for growth significantly enhances engagement and the ability to manage resistance during change. Organizations should prioritize employee development by providing ample opportunities for growth, such as training programs, mentorship, and career development opportunities. This will not only enhance employee skills and knowledge but also increase their engagement in change initiatives.

Within the collaborative learning environment, communication channels exhibit the weak correlation ($\rho = .366$), followed by resistance management (.302) and engagement (.301). This highlights the importance of effective communication in promoting collaboration and managing change effectively. Cultivate a culture of collaboration and knowledge sharing among employees. This can be achieved through initiatives such as cross-functional teams, knowledge sharing platforms, and peer-to-peer learning opportunities.

Regarding the supportive environment, resistance management shows the weak relationship ($\rho = .382$), indicating its critical role in a supportive setting. Engagement (.313) and communication channels (.232) also demonstrate significant but slightly weaker associations. It is a must to foster a supportive and encouraging work environment where employees feel valued, respected, and empowered. This will help to reduce resistance to change and increase employee engagement in the change process. By investing in employee development, fostering collaboration, and creating a supportive environment, organizations can enhance employee engagement, improve communication, and effectively manage resistance to change, ultimately leading to more successful and sustainable change initiatives. Rafferty et al. (2016) emphasized the importance of active listening, addressing employee concerns, and fostering open dialogue and engagement. Similarly, Weick et al. (2019) highlighted the need for creating a supportive and engaging environment for employees, fostering open communication, and proactively addressing resistance through dialogue and collaboration.

Table 7 shows the relationship between technology adoption and change management strategy, with all correlations being highly significant ($p < .001$). The table demonstrates strong and statistically significant positive correlations (rho-values) between all dimensions of Technology Adoption and all dimensions of Change Management Strategy. This indicates a strong and positive interrelationship between successful technology adoption and effective change management practices.

Table 7

Relationship Between Technology Adoption and Change Management Strategy

Variables	rho-value	p-value	Interpretation
Infrastructure			
Engagement	.336**	<.001	Highly Significant
Communication Channel	.325**	<.001	Highly Significant
Resistance Management	.317**	<.001	Highly Significant
Training			
Engagement	.696**	<.001	Highly Significant
Communication Channel	.394**	<.001	Highly Significant
Resistance Management	.341**	<.001	Highly Significant
Support and Evaluation			
Engagement	.241**	<.001	Highly Significant
Communication Channel	.320**	<.001	Highly Significant
Resistance Management	.318**	<.001	Highly Significant

Legend: Significant at $p\text{-value} < 0.01$

For infrastructure, the weak correlation is observed with engagement ($\rho=.336$), followed by communication channels (.325) and resistance management (.317). This suggests that when organizations provide adequate and reliable technological infrastructure, employees are more likely to be engaged in the change process related to technology adoption. In the case of training, engagement exhibits the strong correlation ($\rho=.696$), indicating its critical role in aligning technology adoption with change management strategies. Communication channels (.394) and resistance management (.341) also show significant but comparatively weaker relationships, underscoring the broader influence of training on these dimensions. This suggests that when organizations invest in comprehensive and effective employee training programs related to technology, it significantly enhances employee engagement in the change process associated with technology adoption.

Organizations should prioritize comprehensive training programs that equip employees with the necessary skills and knowledge to effectively utilize new technologies. This includes hands-on training, ongoing support, and opportunities for skill development. Regarding support and evaluation, the weak correlation is observed with communication channels ($\rho=.320$) and resistance management (.318), while engagement shows a slightly lower but still significant association (.241). This highlights the role of ongoing support and evaluation in ensuring effective communication and resistance handling during change processes. All dimensions of Technology Adoption demonstrate significant positive correlations with all dimensions of Change Management Strategy. This highlights the interconnectedness of these factors and emphasizes that successful technology adoption requires a comprehensive approach that considers employee engagement, effective communication, and proactive resistance management.

Both Aydin et al. (2017) and Bhattacharjee (2015) highlighted the crucial role of organizational culture and employee engagement in the successful adoption and continued use of technology. Aydin et al. (2017) specifically investigated the impact of organizational culture on e-learning technology adoption, emphasizing the importance of a supportive organizational culture that includes effective communication, employee engagement, and a focus on continuous learning. Bhattacharjee (2015) further emphasized this point, highlighting the role of organizational culture, employee engagement, and effective change management strategies in ensuring the continued use and adoption of information systems, along with factors such as user satisfaction, perceived usefulness, and perceived ease of use.

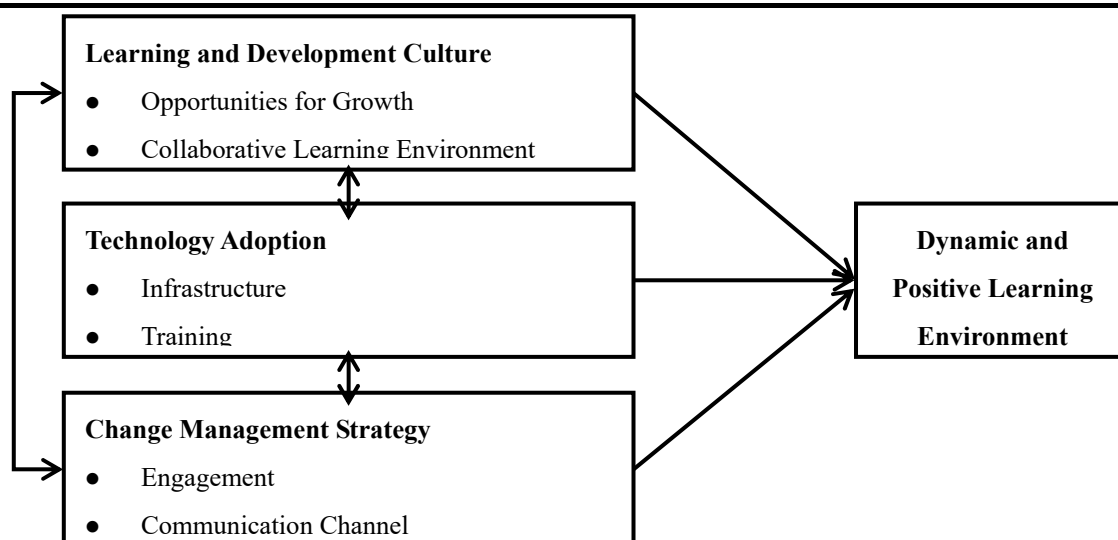


Fig 1. Dynamic and Positive Learning Environment Framework

A Dynamic and Positive Learning Environment is not just a physical space; it is a holistic ecosystem that fosters growth, engagement, and a love of learning. It's characterized by several key features: **Dynamic:** This implies constant evolution, adaptation, and responsiveness to the needs of learners. It's about embracing change, incorporating new technologies and pedagogical approaches, and creating flexible learning experiences. A dynamic environment is not static; it is constantly evolving to stay relevant and engaging.

Positive: This emphasizes the importance of a supportive, inclusive, and encouraging atmosphere. A positive environment fosters psychological safety, where learners feel comfortable taking risks, asking questions, and learning from mistakes. It's about building a sense of community, celebrating successes, and promoting well-being. And **Learning Environment:** This encompasses the physical space, the virtual space, and the overall culture. It's about creating an environment that is conducive to learning, whether it's a traditional classroom, an online learning platform, or a blended learning experience. It includes the resources, tools, and support systems that learners need to succeed.

Connecting the elements: The "dynamic" aspect ensures the learning environment remains current and adaptable, while the "positive" aspect creates the emotional and social foundation for learners to thrive. Together, they create a powerful synergy that maximizes learning potential. In essence, *Cooperation in the Classroom* makes a strong case for the use of cooperative learning as a powerful instructional strategy. It provides teachers with the theoretical background and practical tools they need to create effective cooperative learning experiences for their students. It emphasizes that cooperative learning is not just about putting students in groups; it requires careful planning, structuring, and monitoring to ensure that all students benefit.

4. Conclusions and recommendations

The respondents generally agreed on the presence of learning and development culture in terms of opportunities for growth, collaborative learning environment and supportive environment. There is moderate technology adoption in terms of infrastructure, training, support and evaluation; assessed the change management strategy. The respondents moderately observe change management strategy in terms of engagement, communication channel and resistance management. There is highly significant relationship between learning and development culture, technology adoption and change management. A Framework for a Dynamic and Positive Learning Environment has been developed. Department Heads may encourage collaborative projects that require employees to work together and learn from each other. The management may consider creating a dedicated team responsible for both technology support and evaluation, to ensure a coordinated and integrated

approach to improving technology adoption. Human Resources department may regularly evaluate the effectiveness of communication efforts using track metrics, message each employee engagement, and feedback received. The framework may be adopted by the universities as valuable guide for creating dynamic and positive learning environment. Future researchers may investigate potential mediating variables, such as employee motivation and self-efficacy to further the relationship between learning and development culture, technology adoption, change management and positive learning environment

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