EMTEC4ED

Emerging Technologies for Education

QUESTIONNAIRE ANALYSIS

Co-funded by the European Union

In this analysis of the "Emerging Technologies for Education" questionnaire, we delve deeply into the current landscape of educational technology, exploring how educators interact with, perceive, and integrate these advancements into their pedagogical practices. This report synthesises the rich data derived from the EMTEC4ED initiative, offering a nuanced understanding of the demographic profiles of educators, their levels of comfort and frequency in using technology, and the diverse challenges they face in this rapidly evolving field.

A diverse group of 170 educators, primarily from two countries (Malta and Serbia), answered the questionnaire on the use of technology in education. The respondents vary significantly in their teaching experience, ranging from 1 to 36 years, with an average of approximately 19 years, indicating a mix of relatively new and highly experienced educators. They teach various age groups, focusing on primary school education. This demographic spread suggests that the survey captured a broad spectrum of insights from educators at different stages of their careers and teaching various age groups, providing a comprehensive overview of technology integration in different educational settings.

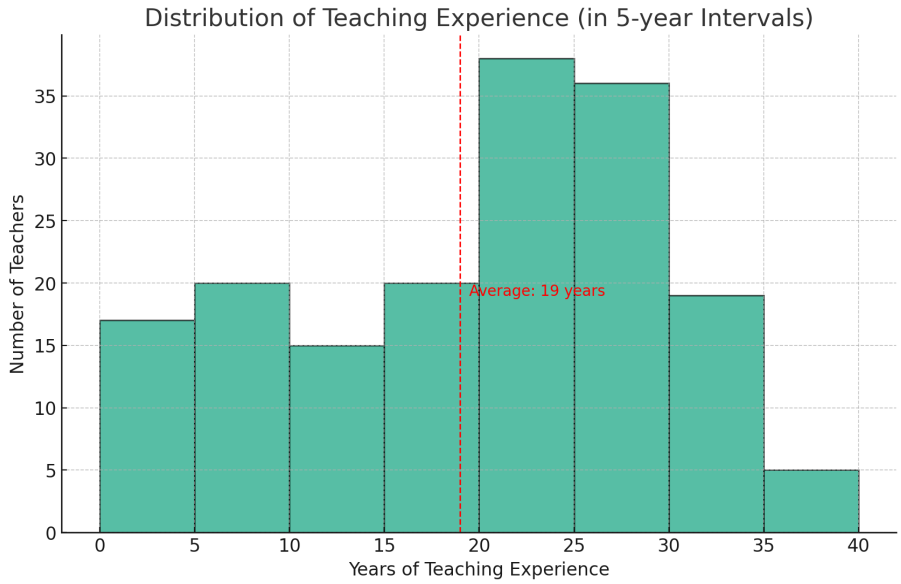
Our investigation into educators' perceptions of emerging technologies provides invaluable insights into current trends and apprehensions, highlighting areas where support and professional development are most critically needed. By examining the application of technology in teaching basic literacy and numeracy, we uncover the effectiveness and innovative practices reshaping foundational education.

This analysis is meant to chart the present state of educational technology integration and guide strategic decisions for future advancements. The report serves as an essential resource for policymakers, educators, and stakeholders in the educational technology sector, steering them towards informed decisions that harness the full potential of technological innovations in enriching educational experiences.

Section 1: Demographics

This section aims to gather basic information about the respondents' professional backgrounds. Understanding their teaching experience, the age group they cater to, and their current use of technology in teaching will provide context to their responses in the subsequent sections.

How many years of teaching experience do you possess?



The data analysis of the teaching experience, divided into 5-year intervals, reveals several key insights:

1. **Distribution of Experience**: The histogram indicates a diverse range of teaching experiences among the participants. Notably, the two most populous groups are in the 20-25 and 25-30 year ranges, suggesting a significant representation of highly experienced educators.

2. **Peak Experience Ranges**: The highest concentration of teachers falls within the 20-30 year experience range. This could imply a seasoned workforce, with substantial teaching experience and likely a deep understanding of educational methodologies.

3. **Average Teaching Experience**: The average teaching experience across all participants is approximately 20 years. This red dashed line on the histogram signifies the central tendency of the dataset, indicating that the typical participant has two decades of teaching experience.

4. **Declining Numbers with Increasing Experience**: Post 30 years, there is a noticeable decline in the number of teachers. This trend might reflect retirement or career shifts among more experienced educators.

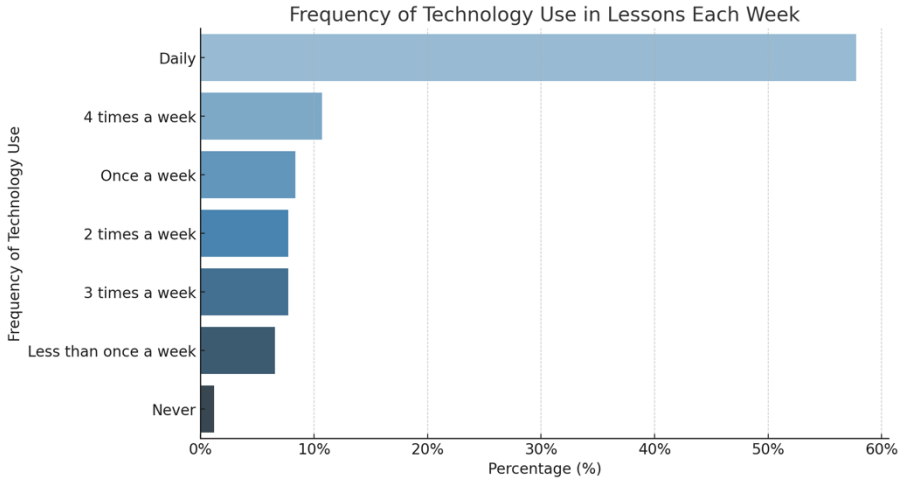
5. **Representation of New Teachers**: The first bin (0-5 years) shows a significant number of teachers, indicating a healthy influx of new educators into the field.

6. **Steady Presence of Mid-Career Teachers**: The ranges from 5 to 20 years show a consistent presence, indicating a stable mid-career teacher population.

7. **Variability in Senior Teachers**: The variability in numbers for teachers with over 20 years of experience could be influenced by factors like retirement age, career changes, or the evolving nature of the teaching profession.

This analysis shows that the teaching workforce is a blend of new, mid-career, and highly experienced educators. The prevalence of teachers with 20-30 years of experience indicates a mature and knowledgeable educational community. This diversity in experience levels is beneficial, as it combines the innovation and adaptability of newer teachers with the wisdom and seasoned approaches of veteran educators. However, the gradual decline in numbers beyond 30 years of experience underscores the importance of continual recruitment and retention strategies to maintain a dynamic and robust teaching workforce.

How often do you use technology in your lessons each week?



The bar graph above visualises the frequency of technology use in weekly lessons among educators. This can be interpreted as follows:

1. **Daily Usage**: Many educators (78%) use technology almost daily (5, 4 or 3 times a week) in their lessons. This indicates a high integration of digital tools in everyday teaching practices.

2. **Weekly and Bi-weekly Usage**: There are also notable percentages of educators (17%) who use technology once or twice weekly. This suggests that while technology is a regular component of their teaching methods, it may only be central to some lessons.

3. **Less Frequent Usage**: A smaller segment of educators (5%) reported less frequent use of technology, such as a few times a month. This could imply either limited access to technological resources or a preference for traditional teaching methods over digital tools.

Overall, the data reveals a trend towards the regular use of technology in educational settings, reflecting the increasing importance of digital literacy and the adoption of innovative teaching methodologies. The high frequency of daily and weekly usage underscores the growing role of technology in shaping contemporary educational experiences. This trend is likely driven by the evolving educational landscape, the availability of diverse technological tools, and the growing emphasis on preparing students for a digitally interconnected world.

What types of technology do you currently use in your teaching?

The data analysis of the types of technology used by teachers in their teaching provides a clear view of the current technology trends in education:

1. **Dominance of Smartboards**: Smartboards, including interactive whiteboards, are the most commonly used technology, with nearly half of the teachers (49%) incorporating them into their teaching. This high percentage suggests their importance in interactive and dynamic teaching methods.

2. **Online Learning Platforms**: A significant portion of teachers (24%) utilise online learning platforms and educational websites, highlighting the role of digital learning environments in modern education.

3. **Digital Content and Resources**: The use of digital textbooks, educational software, and multimedia resources is also notable, with 21% of teachers incorporating these into their teaching. This indicates the growing importance of digital materials in educational settings.

4. **Video Conferencing Tools**: Usage of video conferencing tools, likely accelerated by recent shifts towards remote learning, is reported by 6% of teachers, reflecting the relevance of these tools for virtual classrooms and communication.

5. **Limited Use of Tablets and Mobile Devices**: Surprisingly, the usage of tablets and mobile devices in teaching is extremely low, which might indicate a lack of accessibility, policy restrictions, or preference for other forms of technology.

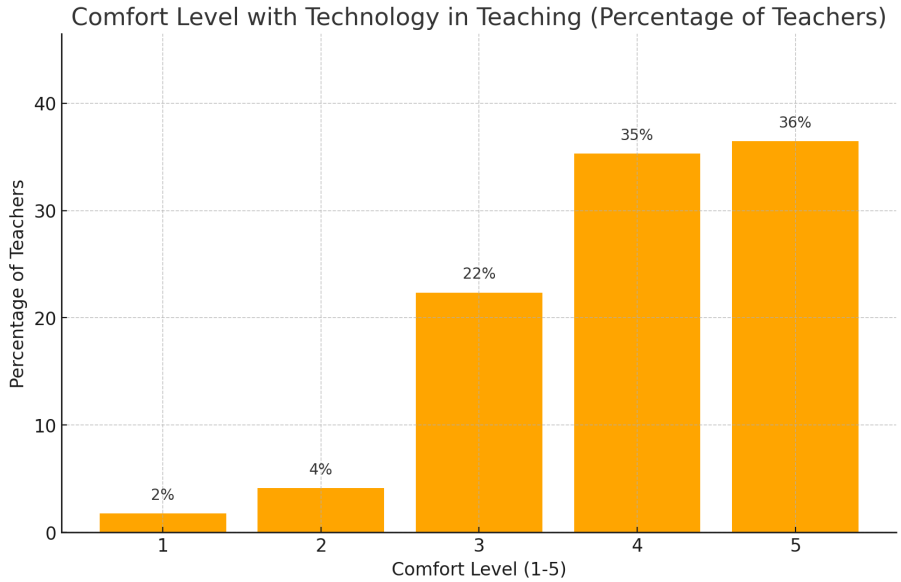
6. **Average Use of Technology Types**: The average percentage across different types of technology is around 25%, indicating a reasonably even distribution among the top three categories.

This analysis shows that smartboards and interactive whiteboards play a central role in the current educational landscape, likely due to their ability to facilitate interactive and engaging learning experiences. Online learning platforms and digital content resources also form a significant part of the educational technology mix, reflecting the shift towards digital and remote learning modalities. The specific needs and contexts of the educators surveyed might influence the relatively lower use of video conferencing tools compared to other technologies. The absence of significant tablet and mobile device usage could point to potential growth or an aspect that might need to be more utilised in educational settings. This data provides valuable insights into the types of technology shaping contemporary teaching practices.

Section 2: Comfort Level with Technology

This section is designed to assess the respondents' comfort level with using technology in their teaching. It's important to understand their current comfort level to identify potential areas of improvement and to tailor any necessary training or support.

How comfortable are you with using technology in your teaching?



The data analysis of teachers' comfort levels with using technology in their teaching provides insightful observations:

1. **High Comfort Levels**: A significant portion of teachers (35% and 36%) report high comfort levels with technology, rating their comfort as either 4 or 5 on a 5-point scale. This indicates a strong familiarity and ease with technology among most educators.

2. **Moderate Comfort**: About 22% of teachers rate their comfort level as 3, suggesting they are moderately comfortable using technology in their teaching. This group may be proficient with technology but less confident than those rated higher.

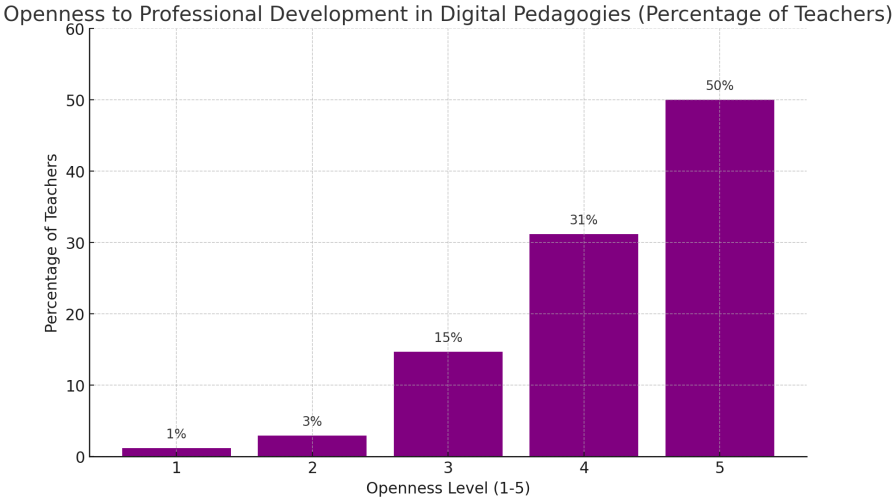
3. **Low Comfort Levels**: A smaller group of teachers (4% and 2%) express low comfort with technology, rating their comfort as 1 or 2. These educators may face challenges or feel less confident in integrating technology into their teaching.
4. **Dominance of High Comfort**: The combined percentage of highly comfortable teachers with technology (rating 4 and 5) exceeds 70%,

underlining the prevalence of technology proficiency in the teaching community.

5. **Minimal Extremely Uncomfortable Teachers**: Very few teachers (2%) rate themselves as uncomfortable with technology, indicating that extreme discomfort with technology is rare among educators.

From this analysis, it is clear that most teachers are quite comfortable with using technology, with a significant number feeling very comfortable. This trend reflects the growing integration of technology in education and the increasing familiarity of educators with digital tools and platforms. The presence of a moderate group indicates ongoing adaptation and learning in technology use. The small proportion of teachers who are not comfortable with technology highlights a need for continued professional development and support to ensure all educators can effectively integrate technology into their teaching. Overall, the data suggests a positive alignment between educators' comfort with technology and the demands of a technology-rich educational environment.

How open to continuous professional development in the area of digital pedagogies?



The data analysis regarding teachers' openness to continuous professional development in the area of digital pedagogies reveals several significant points:

1. **High Openness to Development**: A substantial 50% of the teachers indicate a very high level of openness (rating 5), showing strong enthusiasm for continuous professional development in digital pedagogies.

2. **Considerable Openness Among Majority**: Adding the percentage of teachers who rated their openness as 4 (31%), it is clear that a vast majority

(over 80%) are either very open or quite open to professional development in digital technologies.

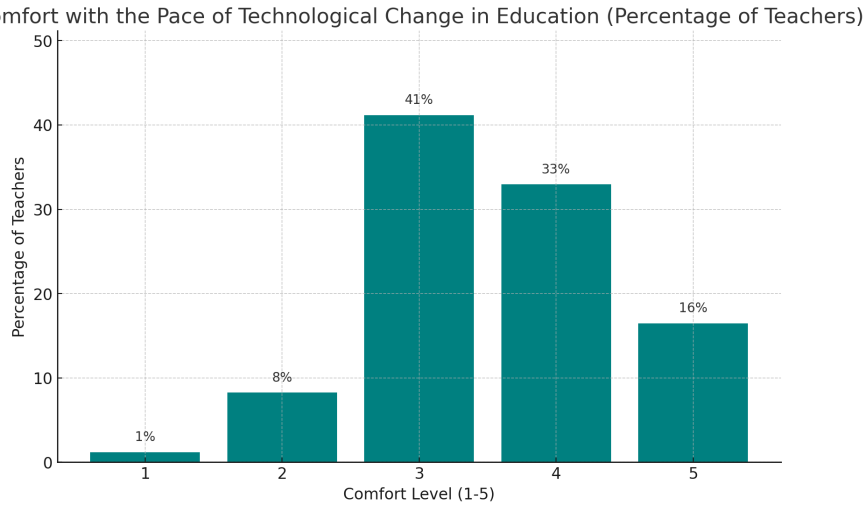
3. **Moderate Openness**: A smaller segment (15%) rates their openness as average (rating 3). These educators may be receptive to learning but with reservations or less enthusiasm than the higher categories.

4. **Low Openness is Minimal**: Only a minor fraction of teachers express low openness, with 3% rating it as 2 and 1% as 1. This indicates that reluctance or resistance to professional development in digital pedagogies is relatively rare.

5. **Dominance of Positive Attitude**: The data clearly shows a dominant positive attitude towards professional development in digital pedagogies, with the vast majority of teachers being open or very open to it.

This analysis shows that there is a strong and prevalent openness among educators for professional development in digital pedagogies. This reflects an awareness of the growing importance of digital skills in education and a willingness to adapt and enhance their teaching methods accordingly. The high level of openness is a positive indicator of the potential adoption of new teaching technologies and methodologies. It also suggests that educators are cognisant of the evolving educational landscape and must stay abreast of technological advancements to provide adequate and relevant education. The low levels of resistance or reluctance further indicate a progressive attitude in the teaching community towards embracing technological changes and advances in educational methodologies.

How do you feel about the pace of technological change in education?



The data analysis concerning teachers' comfort with the pace of technological change in education provides a nuanced picture of their perceptions:

1. **Moderate Comfort is Most Common**: The largest group of teachers (41%) reports average comfort (rating 3) with the pace of technological change. This suggests that while many educators are adapting to technological changes, there is still a level of challenge or reservation.

2. **Considerable Comfort Among Many**: A significant portion of teachers express a high level of comfort (ratings 4 and 5), constituting nearly half of the responses (49%). This indicates that many educators are quite at ease with the rapid evolution of technology in education.

3. **Some Discomfort**: A notable segment of teachers are less comfortable with the pace of change, with 8% rating their comfort as 2 and 1% as 1. These educators might find the rapid changes overwhelming or challenging to keep up with.

4. **Overall Positive Tendency**: The combined percentage of teachers who are comfortable or very comfortable (ratings 4 and 5) suggests a generally positive attitude towards the pace of technological change.

5. **Diversity in Comfort Levels**: The spread across different comfort levels indicates a diverse range of responses and adaptability to technological changes among educators.

This analysis shows that teachers have varied levels of comfort with the pace of technological change in education. While a majority lean towards moderate to high comfort, indicating adaptability and positive reception to these changes, a significant portion still finds the rapid pace challenging. This diversity in comfort levels highlights the need for tailored support and resources to help educators at different stages of adaptability. The data underscores the importance of continuous professional development and institutional support to help educators navigate and integrate technological advancements effectively in their teaching practices. The overall positive inclination towards technology change suggests a readiness among educators to engage with and benefit from the evolving digital landscape in education.

Are there specific types of technology that you find difficult to use in your teaching?

While many teachers embraced technology in the classroom, some difficulties emerged related to specific types and implementation challenges. Here's a summary:

Technology Types:

- **Tablets:** Several teachers found tablets challenging due to connectivity issues, preparation workload for group work, and insufficient or unreliable devices.

- **AI and assessment tools:** Integrating AI with young learners and incorporating new AI tools were mentioned as challenges.

- **Digital media conversion:** Converting videos to YouTube was raised as a specific difficulty.

- **Smartboards and software:** Using ready-made software on smartboards and accessing specific educational software were obstacles for some.

- **Online quizzes and virtual/augmented reality tools:** A few teachers expressed struggles with online quizzes and lack of experience with VR/AR.

Implementation Challenges:

- **Time and resources:** The time needed to troubleshoot and manage devices, along with a lack of human support, hindered seamless technology integration.

- **Training and support:** Training on new tools and ongoing technical support were identified as crucial needs for teachers.

- **Insufficient or unreliable devices:** Limited availability, connectivity issues, and unreliable devices hampered effective technology use.

- **Software limitations**: Inconsistent quality and access issues with mandatory digital educational software were frustrating.

Overall, while many teachers value technology's potential in education, specific types and implementation challenges can create obstacles. Addressing these hurdles through better resources, training, and support can help teachers leverage technology effectively in the classroom.

Section 3: Needs and Challenges

This section aims to understand the respondents' perceived needs and challenges when it comes to using technology for teaching. The insights gathered here will help in identifying areas where additional resources or support may be required.

What are the biggest challenges you face when using technology in your teaching?

Teachers eager to incorporate technology into their teaching face many challenges, creating a complex obstacle course for effective integration. Analysing the responses, the most prominent hurdles fall into several key categories:

1. Resource Scarcity:

- **Insufficient resources:** This encompasses a lack of devices, software subscriptions, and even basic materials like paper for printing worksheets related to digital tools.

- **Unreliable Internet connection:** This disrupts lesson plans, hinders online learning platforms, and frustrates both teachers and students.

- **Unsustainable availability of tools:** Expired subscriptions to valuable digital resources leave teachers scrambling for alternatives, disrupting continuity and momentum.

2. Training and Support:

- **Lack of training:** Many teachers feel inadequately equipped to handle the technical aspects of new technologies, hindering their ability to utilise them effectively.

- **Time constraints:** Finding time for professional development on top of existing workloads proves difficult, leaving teachers feeling unprepared and overwhelmed.

- **Lack of support:** Feeling alone in their struggles with technology further exacerbates the challenges teachers face.

3. Student Management:

- **Difficulty managing student use of technology:** Ensuring students stay focused on learning tasks and avoiding distractions presented by technology can be a constant battle.

- **Time pressures:** The time it takes to troubleshoot technical issues and manage student technology use eats into valuable teaching time, impacting lesson delivery.

4. Curriculum and Time:

- **Time and syllabus restrictions:** Integrating technology within existing curriculum constraints and tight timeframes can be tricky, leading to rushed implementations and less-than-optimal outcomes.

- **Vast syllabus:** The sheer volume of material to cover can make it challenging to find time for technology-based activities despite their potential benefits.

5. Personal Challenges:

- **Lack of personal knowledge:** Some teachers may have limited personal experience with specific technologies, adding to the learning curve and potentially hindering their confidence.

- **Financial limitations:** Personal resources may not stretch to cover expenses related to acquiring technology or attending relevant training, creating an additional barrier.

Beyond the Challenges:

While these challenges paint a picture of potential frustrations, it's important to remember that many teachers successfully navigate these obstacles and reap the benefits of technology in their classrooms. Addressing these challenges through better resource allocation, targeted training, practical support systems, and curriculum adjustments can empower teachers to harness the full potential of technology and create engaging and effective learning experiences for their students.

What are the main barriers you face when trying to integrate technology into your teaching?

Integrating technology into teaching promises enhanced learning, but educators face many obstacles. Analyzing the responses reveals several recurring themes that paint a clear picture of these challenges:

Skills and Training:

- **Lack of technical skills:** This is the most frequent barrier, highlighting the need for robust professional development programs to equip educators with the necessary technological know-how.

- **Insufficient training time:** Educators often struggle to find time amidst their hectic schedules to learn and practice new technologies. This necessitates flexible and accessible training options.

Resource Constraints:

- **Insufficient hardware and software:** Lack of adequate devices, outdated equipment, and limited access to software licenses hinder effective technology integration.

- **Unreliable Internet connectivity:** A stable and efficient Internet is crucial for online learning activities, but connectivity issues can disrupt learning.

Administrative and Logistical Hurdles:

- **Lack of administrative support:** Insufficient backing from school leadership can create bureaucratic roadblocks and impede progress.

- **Rigid curriculum structures:** Curriculums that are not designed for technology integration can limit the creative use of tools and resources.

- **Safety concerns:** Educators understandably worry about online safety, data privacy, and potential misuse of technology by students.

Other Challenges:

- **Time constraints in the classroom:** Integrating technology effectively requires dedicated time within lessons, which can be challenging to manage with large class sizes or packed schedules.

- **Student-specific issues:** Factors like the number of students per department or individual student technical difficulties can add additional layers of complexity.

- **Security concerns:** Online environments raise concerns about network security and data breaches, requiring robust security measures and protocols.

By tackling these challenges head-on, we can create a learning environment where technology empowers educators and enhances the educational experience for all students.

What kind of support do you need to overcome these barriers?

The replies to this question reveal a multitude of challenges faced by educators in implementing effective teaching practices. While some responses simply express a lack of difficulties, the majority highlight several key areas where support is needed to overcome these barriers. Let's delve deeper into the most recurring themes:

1. Time Constraints:

- **Planning and Preparation:** A resounding cry for more planning time echoes throughout the responses. Educators need dedicated hours to craft impactful lessons, adapt to student needs, and integrate technology effectively.

- **Workload Management:** The demands of smaller class sizes, coupled with administrative tasks, leave little room for essential planning and professional development.

2. Professional Development:

- **Skill Enhancement:** Educators seek ongoing training to stay abreast of evolving pedagogies, digital tools, and student learning styles. This includes effective integration of technology and content creation skills.

- **Specialised Support:** Specific needs emerge, such as navigating administrative complexities and requiring targeted professional development opportunities.

3. Technological Infrastructure:

- **Reliable Hardware and Software:** Consistent access to laptops, tablets, and robust network infrastructure is crucial for seamless technology integration and digital content creation.

- **Technical Proficiency:** Educators need support in troubleshooting technical issues and mastering the intricacies of various digital tools.

4. Class Size:

- **Individualised Attention:** Smaller classes are consistently requested to facilitate personalised learning, cater to diverse student needs, and provide adequate feedback.

- **Classroom Management:** Smaller groups allow for better classroom management, fostering a more focused and engaging learning environment.

5. Additional Support:

- **Flexible Curriculum:** Educators seek greater flexibility in curriculum design to adapt to local contexts, student interests, and evolving needs.

- **Sustainable Resources:** Access to quality digital learning materials and subscription services empowers educators and students to create dynamic content.

By addressing the recurring themes and implementing targeted support measures, we can empower educators to overcome these barriers and foster a more effective, engaging, and technology-driven learning environment for all students. Remember, these are just initial considerations; further analysis and collaboration with educators are crucial to tailor solutions to specific contexts and needs. Let's prioritise educator well-being and professional development, for their success ultimately paves the way for student success.

What types of resources or support would help you overcome these challenges?

While educators recognise the potential of technology in education, implementing it effectively presents a vast array of challenges. Analysing their responses clearly shows their obstacles and the resources they desperately need to overcome them.

The Recurring Issues:

- **Internet Problems:** A robust internet connection emerges as the most frequent plea. Slow speeds, unreliable connections, and limited access hinder online learning and resource utilisation.

- **Software Shortcomings:** Educators crave a more comprehensive range of software options tailored to their needs and curriculum objectives. The lack of diversity limits creativity and engagement in the learning process.

- **Training Thirst:** The resounding call for more training opportunities highlights the need for ongoing professional development. Educators need

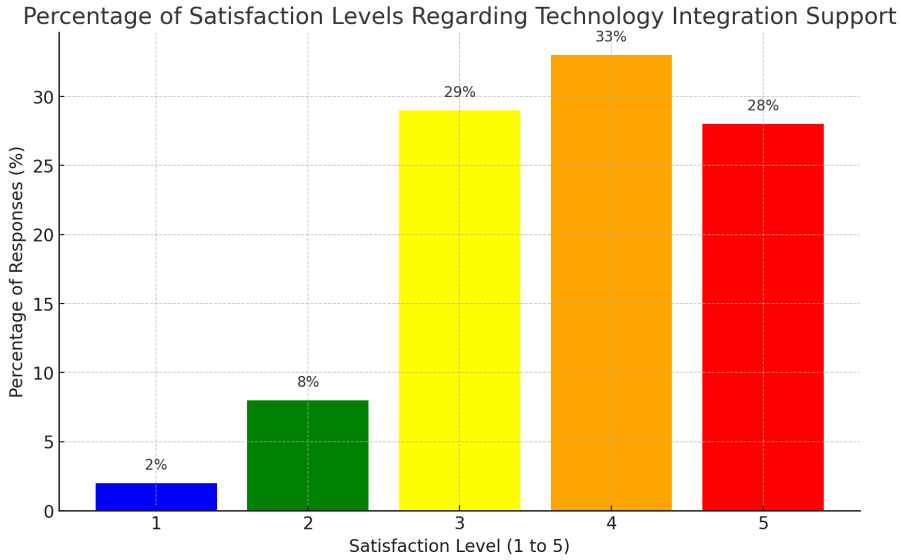
guidance on effectively integrating technology into their lessons and maximising its potential.

- **Device Deficits:** Access to sufficient devices for all students is crucial. Sharing devices hinders individual learning and limits opportunities for independent exploration and practice.

- **Technical Tribulations:** Reliable technical support is paramount. Educators need a helping hand to troubleshoot issues, maintain equipment, and navigate software complexities.

These cries for support, echoing from educators across the spectrum, demand a proactive response. Equipping them with the necessary resources – better internet, diverse software, comprehensive training, sufficient devices, reliable technical support, and flexible learning environments – is not just an expense but an investment in the future of education. By empowering educators, we empower students to thrive in a technology-driven world.

How do you feel about the support you receive from your school in terms of technology integration?



The analysis of this question reflects the feelings of individuals about the support they receive from their school in terms of technology integration and reveals some insightful trends and patterns:

1. **Majority Satisfaction:** The data demonstrates a predominant leaning towards satisfaction (levels 4 and 5). A significant portion of the respondents rate their satisfaction at these higher levels. This indicates that, overall, most individuals feel positive about the technology integration support they receive in their schools.

2. **Moderate Satisfaction is Common:** A notable number of respondents rated 3, suggesting a moderate level of satisfaction. This indicates that while many are not highly dissatisfied, there is room for improvement in technology integration support.

3. **Lower Satisfaction Levels:** Ratings of 1 and 2, indicative of dissatisfaction, have the least frequency. However, their presence must be noticed. It highlights a segment of the population not feeling satisfied with the current state of technological support in their schools.

4. **Room for Improvement:** The spread of responses across all five levels suggests a diverse range of experiences and perceptions. While there is a clear skew towards satisfaction, lower ratings indicate areas where improvements can be necessary.

5. **Potential for Targeted Interventions:** The data could be utilised to develop targeted interventions. For instance, understanding the specific needs or challenges of those who rated their satisfaction low could be crucial in enhancing the overall effectiveness of technology integration in schools.

6. **Importance of Continuous Feedback:** The varying satisfaction levels emphasise the importance of continuous feedback mechanisms in schools. Regularly gauging satisfaction levels can help in the timely identification and resolution of issues, leading to improved support systems.

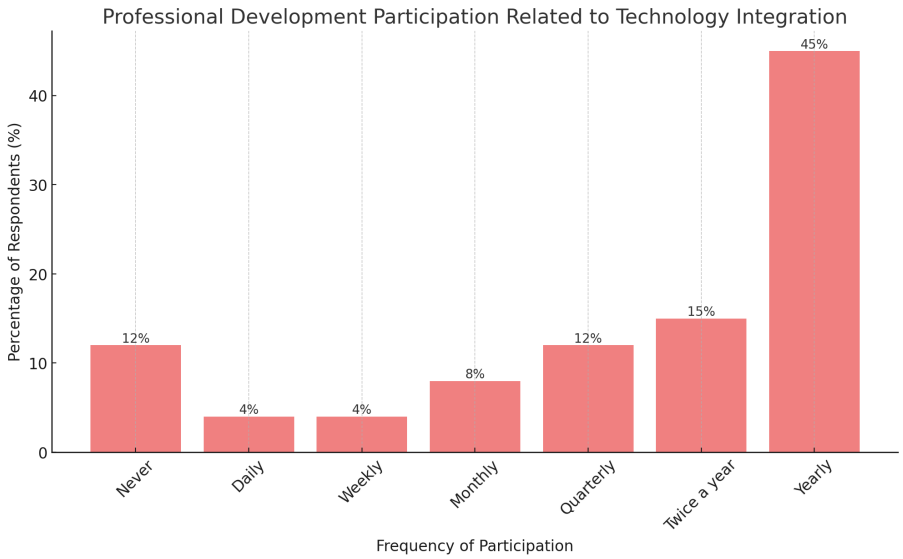
7. **Reflective of Overall Trends:** While this data is valuable, it is also essential to note that it is representative of the respondents' perceptions and may not fully capture the entire spectrum of experiences in different educational settings.

The analysis reveals a generally positive attitude towards technology integration support in schools, with a significant majority expressing satisfaction. However, the presence of moderate to low satisfaction levels indicates a need for ongoing evaluation and improvement of these support systems. By addressing the concerns of those less satisfied and building on the areas of strength, schools can enhance their technology integration strategies to benefit all stakeholders.

Section 4: Emerging Technologies

This section is designed to gauge the respondents' familiarity and interest in emerging technologies. Understanding their awareness and interest can help in planning future professional development programs and technology integration strategies.

How often do you participate in professional development related to technology integration?



The analysis of this data provides significant insights into the trends and habits of professionals regarding their commitment to technology integration training and development:

1. **Yearly Engagement Dominates:** The most striking observation is that a significant 45% of respondents engage in professional development related to technology integration on a yearly basis. This indicates a strong, albeit infrequent, commitment to staying updated with technological advancements.

2. **No Engagement:** A staggering 12% of the participants never engage in such professional development activities. This could reflect constraints in time, resources, or a lack of perceived need/value in ongoing tech-related professional development.

3. **Regular but Less Frequent Engagement:** The responses for bi-annual (15%), quarterly (12%), and monthly (8%) participation show a consistent, though less frequent, engagement in professional development. This suggests a

balanced approach to keeping abreast of major technological trends without overly disrupting their regular professional duties.

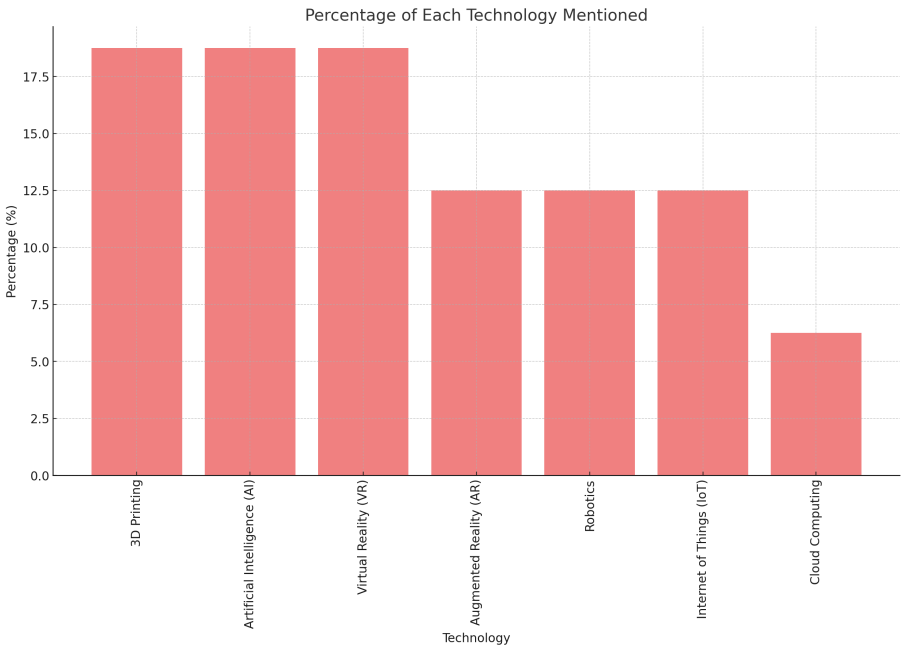
4. **Daily and Weekly Commitment is Minimal:** Interestingly, daily (4%) and weekly (4%) participation is relatively low. This could be due to the intensive time commitment required for such frequent engagement, which is only feasible for some professionals.

5. **Potential for Increased Regularity:** The data indicates room for increasing professional development frequency. Encouraging more frequent, albeit shorter, sessions could benefit those currently engaged yearly or less regularly, ensuring more consistent updates and skill enhancement.

6. **Addressing the 'Never' Category:** The 12% of respondents who never participate in such activities represent a significant portion that could be missing out on essential skills and knowledge in an increasingly tech-driven professional environment. Identifying and addressing the barriers for this group could be crucial for their professional development.

While many professionals are committed to yearly updates in technology integration, there is a noticeable trend towards less frequent engagement or even a complete lack of participation. Tailoring professional development programmes to be more accessible and less time-intensive could encourage more regular participation across the board.

Are you familiar with the following emerging technologies?



The various responses about familiarity with emerging technologies reveal some interesting insights into the prevalence and recognition of these technologies:

- **Artificial Intelligence (AI), Virtual Reality (VR)** and **3D Printing** are among the most frequently mentioned, reflecting a significant awareness and likely adoption in various sectors.

- Technologies like **Augmented Reality (AR), Robotics and the Internet of Things (IoTs)** also appear prominently, indicating growing interest and potential applications in gaming, education, and healthcare industries.

- **Cloud Computing,** though not as frequently mentioned as the others, still holds a considerable presence, highlighting its relevance in the foundational infrastructure of modern digital enterprises.

The data analysis reveals a diverse range of familiarity with emerging technologies, with AI, VR and 3D Printing leading in recognition. This indicates a broader trend towards embracing digital and automated solutions across various sectors. The variability in responses also underscores the different stages of adoption and understanding of these technologies, which is crucial for businesses and policymakers to consider when strategising for technology integration and education.

Could you envision how you might use each of the technologies selected in the previous question in your teaching?

The data reveals an emerging trend in education: integrating advanced technologies to enhance teaching and learning. Educators are aware of the potential these technologies hold but also acknowledge their limitations, primarily due to a lack of training and resources. This insight is crucial for educational policymakers and technology providers, highlighting the need for more accessible training programmes and resource allocation to schools. The following is a summary of their replies:

Uses:

- **Virtual Reality (VR) and Augmented Reality (AR):**
  - Historical and geographical exploration (e.g., Ancient Egypt, different habitats).
  - Enhancing storytelling and experiential learning.
  - Creative writing inspiration.

- **Robotics:**
  - Integrated with subjects like English for creative writing and instructions.

    - Mathematics applications and programming.
    - Enhancing creativity and engagement.

- **3D Printing:**
    - Creating educational models (e.g., Ancient Egyptian jewels, 3D shapes).
    - Art and craft projects.
    - Science and maths education (e.g., designing objects with accurate measurements).

- **Artificial Intelligence (AI):**
    - Automated exercise creation.
    - Interactive learning games.
    - Data analysis and feedback for assessments.
    - Planning and resource management.

- **Cloud Computing:**
    - Sharing class resources and assignments.
    - Storing and finding files quickly.
    - Online collaboration and sharing of educational materials.

Common Themes and Concerns:

- **Training and Guidance:** Many educators express a need for training and guidance in implementing these technologies.

- **Creativity and Engagement:** A recurring theme is the use of technology to enhance creativity and student engagement.

- **Practical Application:** Teachers are interested in practical applications that integrate with their current curriculum.

- **Resource Availability:** The availability of technology and resources is a concern, impacting the ability to implement these technologies effectively.

The overarching theme is the desire to make learning more engaging, interactive, and relevant to the modern world. However, the need for guidance and resources is a significant barrier. This indicates a gap between technological potential and practical application in educational settings, suggesting that while educators are open to adopting new technologies, the support infrastructure still needs to be entirely in place to enable widespread and practical use.

This data provides valuable insights into the current state of technology integration in education, highlighting both the enthusiasm for new teaching tools and the challenges that educators face in implementing them. It underscores the

need for targeted training and resource allocation to maximise the benefits of these technologies in the classroom.

Which of these technologies are you interested in learning more about for your teaching?

In the current landscape of technological advancement, a distinct pattern of interdisciplinary interest and integration among various fields has emerged. This pattern reflects the dynamic and evolving nature of these technologies and their applications. Here's a detailed exploration of these trends, which may guide in deciding which technology to delve deeper into:

1. **Augmented Reality (AR):** AR, a technology that overlays digital information on the physical world, is consistently linked with Artificial Intelligence (AI), Virtual Reality (VR), and Robotics. This trend indicates a strong interest among AR experts to explore AI, VR, and Robotics. The intersection of AR with AI offers possibilities for enhancing the intelligence of AR systems, making them more interactive and responsive. The overlap with VR points to the growing interest in creating more immersive experiences, blurring the lines between the virtual and real worlds. The connection with Robotics suggests the potential for AR in robotic control and navigation, particularly in complex environments.

2. **Virtual Reality (VR):** VR, which creates a completely immersive virtual environment, shows a similar interdisciplinary interest as AR, with a strong inclination towards AI, AR, and Robotics. The interplay between VR and AI is pivotal in creating more intelligent and adaptive virtual environments. The overlap with AR highlights the shared goals in immersive technology, where both AR and VR professionals seek to enhance user experiences. The interest in Robotics within the VR community could be attributed to the use of VR in simulating and designing robotic systems.

3. **Artificial Intelligence (AI):** AI, the simulation of human intelligence processes by machines, is a central point of interest. Its wide-reaching influence is evident as professionals from fields like AR, VR, Robotics, 3D Printing, Internet of Things (IoT), and Cloud Computing (CC) show a keen interest in AI. This underscores AI's foundational role in enhancing these technological capabilities and functionalities. AI's application in these domains ranges from improving decision-making and automation to enabling smarter, more efficient systems.

4. **Internet of Things (IoT) and Cloud Computing (CC):** IoT, the interconnection of everyday devices to the Internet, and CC, the delivery of computing services over the Internet, often go hand-in-hand. This reflects a symbiotic relationship, as the massive data generated by IoT devices requires the expansive storage and processing capabilities CC provides. Integrating IoT with CC paves the

way for more efficient data management, analysis, and real-time processing, essential in today's data-driven world.

5. **3D Printing:** 3D Printing, the process of creating three-dimensional objects from a digital file, shows a unique trend. While individuals skilled in AI, AR, VR, and Robotics often show interest in 3D Printing, experts in 3D Printing themselves are keen to explore AI, VR, Robotics, and CC. This indicates the technology's growing importance when combined with other technologies like AI and Robotics.

6. **Robotics:** Robotics, the branch of technology that deals with the design, construction, operation, and application of robots, is a field of mutual interest. Experts in Robotics are eager to learn more about AI, AR, VR, and 3D Printing, reflecting Robotics' versatile applications. Integrating AI with Robotics is particularly significant for advancing autonomous systems, while AR and VR can be crucial in robot training and simulation.

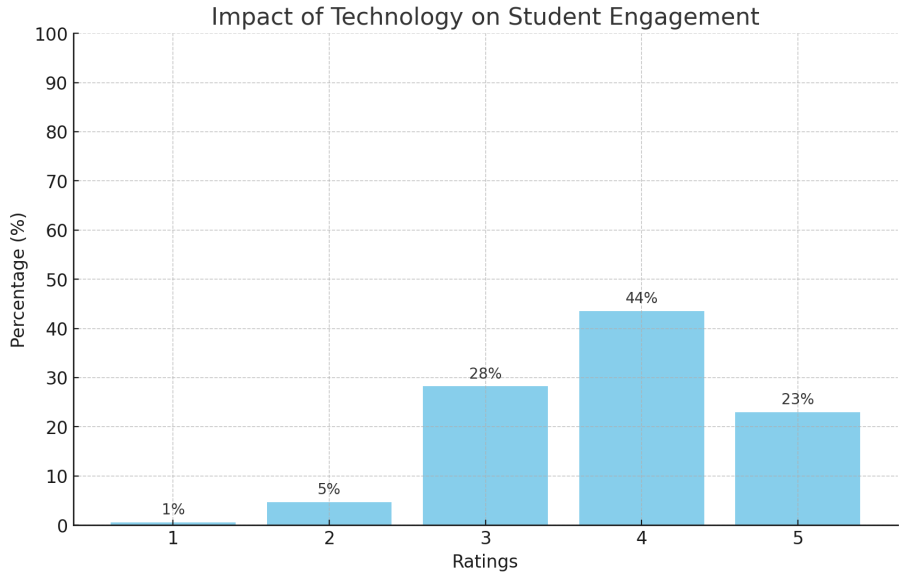
7. **Blockchain (BC):** BC, while less frequently mentioned, emerges as an area of interest, especially among those versed in AI, VR, and IoT. Blockchain's relevance in these fields lies in its potential for secure, transparent, and decentralised data management, which can be integral in areas like data security in IoT and creating trust in AI systems.

The prevailing trend towards interdisciplinary learning and application among these technologies is evident. Given its foundational role across various tech domains, AI is a key focus area. The intertwined nature of AR and VR reflects their collective aim in immersive technology, while the IoT and CC partnership is crucial for data management. Robotics' versatility is highlighted by its complementary relationship with almost all other technologies. Lastly, 3D Printing's unique position shows its growing relevance in diverse applications.

Section 5: Pedagogical Dimension

This section is designed to understand the respondents' views on the pedagogical dimension of using technology. Their insights will help in understanding how they perceive the role of technology in enhancing teaching and learning processes.

How do you feel about the impact of technology on student engagement?



The analysis of the data provided on the impact of technology on student engagement reveals the following insights:

1. **Rating 1 (Very Negative): 1%** - A negligible proportion of respondents view the impact of technology as very negative. This almost non-existent rating indicates that extreme negative perceptions of technology's impact on student engagement are rare.

2. **Rating 2 (Negative): 5%** - A small minority of the respondents perceive the impact of technology as negative. This suggests that concerns exist but are not widespread or dominant among the majority.

3. **Rating 3 (Neutral): 28%** - Over a quarter of the respondents hold a neutral view of the impact of technology on student engagement. This considerable proportion might reflect a recognition of both the benefits and challenges of technology in educational settings. It could also indicate a cautious or undecided stance, possibly due to varying experiences or insufficient information to form a definitive opinion.

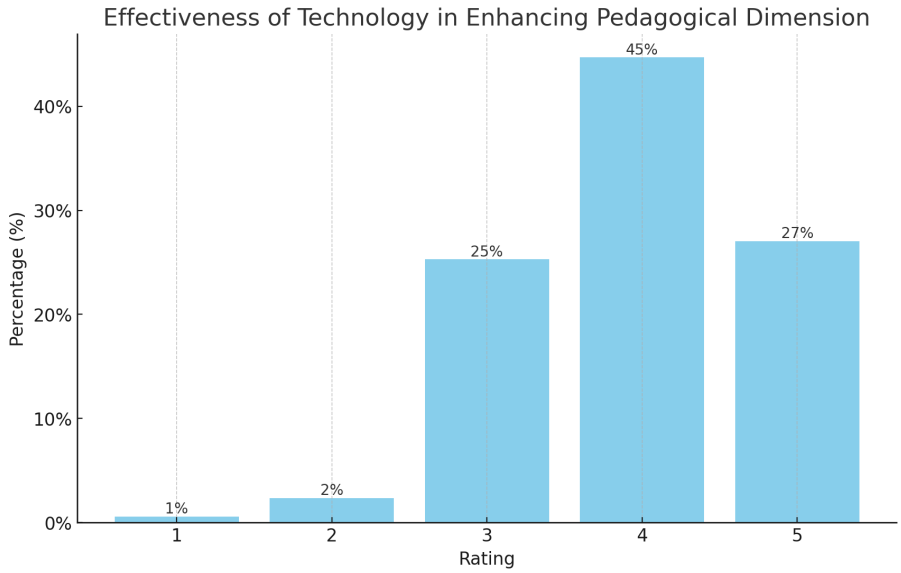
4. **Rating 4 (Positive): 44%** - The most common rating among the respondents, with nearly half perceiving the impact as positive. This

dominant view underscores a strong belief in the beneficial role of technology in enhancing student engagement. It suggests that many have experienced or observed significant advantages of technology in education, such as increased accessibility to learning resources, improved communication channels, and more engaging and interactive learning experiences.

5. **Rating 5 (Very Positive): 23%** - Almost a quarter of the respondents consider the impact of technology on student engagement to be very positive. This substantial percentage highlights the recognition of technology as a powerful tool in revolutionising education. It implies that for these respondents, technology enhances engagement and potentially transforms the educational experience, making it more effective, inclusive, and adaptive to individual learning needs.

The data analysis reveals a predominantly positive outlook on the impact of technology on student engagement, with a combined 67% of respondents rating it as positive or very positive. While a small fraction (6%) have negative perceptions, a significant number (28%) remain neutral. This analysis reinforces the notion that the overall sentiment towards the role of technology in education leans more towards the positive, with recognition of its potential to enhance student engagement significantly, despite some reservations or neutral views.

Can technology enhance the pedagogical dimension of your teaching?



The analysis of the data on the effectiveness of technology in enhancing the pedagogical dimension of teaching reveals the following insights:

- **Rating 4 (Strong Enhancement):** This rating received the highest percentage, with approximately 45% of the responses. This indicates that a significant proportion of respondents believe that technology strongly enhances the pedagogical aspects of teaching.

- **Rating 5 (Very Strong Enhancement):** About 27% of the responses fall into this category, suggesting that more than a quarter of the respondents perceive technology as having a very strong positive impact on pedagogy.

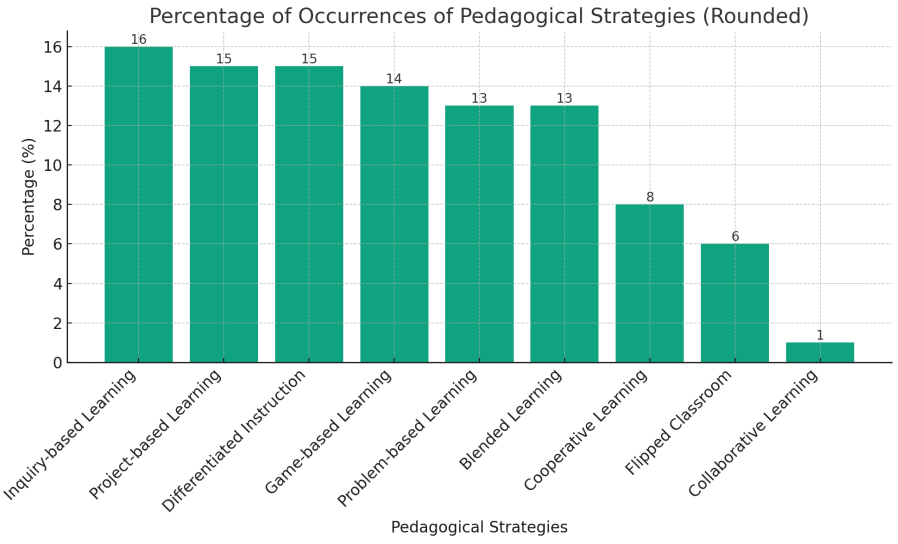
- **Rating 3 (Moderate Enhancement):** This category garnered around 25% of the responses, indicating that a notable number of respondents feel that technology moderately enhances pedagogical practices.

- **Rating 2 (Slight Enhancement):** A smaller fraction, approximately 2%, views the impact of technology on pedagogy as slight.

- **Rating 1 (No Enhancement):** Less than 1% of the respondents believe technology does not enhance the pedagogical dimension.

These findings suggest that the majority of respondents view technology as a significant enhancer of pedagogical practices, with strong (Rating 4) and very strong (Rating 5) enhancements being the most prevalent perspectives. The data indicates a generally positive perception of the role of technology in education, particularly in areas such as differentiating instruction, facilitating collaborative learning, and enhancing student engagement.

Which of the following pedagogical strategies do you think could be enhanced by technology?



The results of the question give us some clear insights into the pedagogical strategies teachers can use with the help of technology. The following is a breakdown of the results:

1. **Inquiry-based Learning**: This strategy leads due to its alignment with critical thinking and research skills essential in the digital age. Technology enhances this approach by providing access to vast resources and tools for data analysis, fostering a more investigative and self-directed learning environment.

2. **Project-based Learning**: Its prominence can be attributed to the growing emphasis on real-world skills and collaborative work in education. Technology facilitates this by offering platforms for project management, communication, and information sharing, making it a natural fit for this strategy.

3. **Differentiated Instruction**: The high frequency of this concept reflects the increasing recognition of diverse learner needs. Technology allows for personalised learning experiences through adaptive learning platforms and diverse multimedia content, catering to different learning styles and paces.

4. **Game-based Learning**: The popularity of this strategy is likely due to its ability to engage and motivate students. Digital games provide interactive and immersive experiences, making learning fun and appealing, especially for younger learners.

5. **Problem-based Learning**: The importance of this approach is likely due to its emphasis on real-world problem-solving and critical thinking, skills highly valued in today's workforce. Technology supports this through simulations, virtual labs, and collaborative tools, providing practical contexts for learning.

6. **Blended Learning**: This method's significance indicates the growing appreciation for flexibility in learning. Combining online and face-to-face instruction, technology enables a more adaptable and accessible education suitable for varied learning environments.

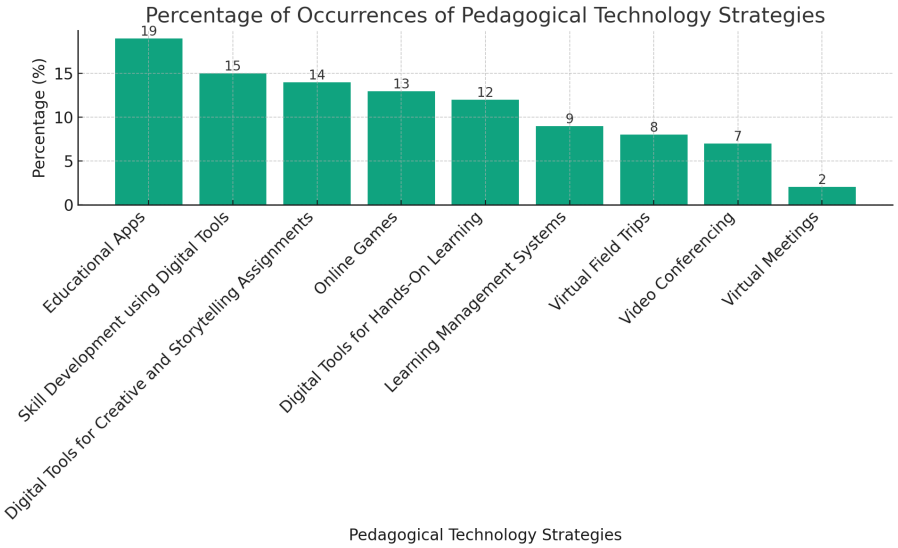
7. **Cooperative Learning**: Though less mentioned, this strategy's presence reflects an understanding of the importance of teamwork and collaboration. Technology facilitates this through collaborative tools and platforms that allow students to work together despite physical distances.

8. **Flipped Classroom**: The moderate mention of this strategy suggests a growing interest in changing traditional classroom dynamics. Using technology for delivering lecture content outside the classroom allows for more interactive and student-centred activities during class time.

9. **Collaborative Learning**: Its lower frequency might be due to it being perceived as part of other pedagogical strategies rather than as a distinct approach. However, its essence is critical in today's interconnected world, and technology plays a crucial role in enabling collaboration across various platforms.

The distribution of these percentages reflects current educational trends and the evolving role of technology in learning. The leading strategies align with 21st-century skills such as critical thinking, collaboration, and personalised learning, which are increasingly important in a rapidly changing world. The emphasis on inquiry-based and project-based learning signifies a shift from traditional rote learning to more exploratory and hands-on approaches. The moderate to lower mentions of flipped and collaborative learning suggest that while these concepts are recognised, they might be overshadowed by more dominant trends or seen as components of other broader strategies. The minimal mention of collaborative learning, in particular, might indicate a need to focus more explicitly on this aspect, especially given the rise of remote and digital collaboration tools in education. Overall, these results highlight a clear trajectory towards integrating technology in education, not just as a tool for information delivery but as a fundamental component of modern pedagogical strategies that are interactive, learner-centred, and skill-oriented.

Could you provide examples of how you have successfully integrated technology into your teaching strategies?



The visual representation clearly explains the relative prominence of various technological strategies in educational technology integration. The following are some observations:

1. **Educational Apps:** This category leading the chart indicates apps' central role in modern education. Their versatility, accessibility, and ability to cater to diverse learning styles make them a cornerstone in educational technology.

2. **Skill Development using Digital Tools**: The high frequency of this concept underscores the shift towards competency-based education. Digital tools offer customised learning paths and practical skill applications, catering to the evolving demands of the 21st-century job market.

3. **Digital Tools for Creative and Storytelling Assignments**: This emphasises the growing importance of fostering creativity and narrative skills. Digital storytelling tools provide interactive platforms for students to express themselves creatively and critically.

4. **Online Games**: Their significant mention highlights the role of gamification in education. Online games make learning engaging and interactive, leading to higher student retention rates and motivation.

5. **Digital Tools for Hands-On Learning:** The emphasis here is experiential learning, where digital tools bridge the gap between theoretical knowledge and practical application. This approach enhances understanding through real-world simulations and interactive activities.

6. **Learning Management Systems**: LMSs are fundamental in organising, tracking, and delivering educational courses. Their presence reflects the need for streamlined educational processes and efficient management of learning resources.

7. **Virtual Field Trips**: This strategy's prominence focuses on the value of experiential learning beyond the classroom. Virtual field trips offer students immersive learning experiences that might otherwise be inaccessible.

8. **Video Conferencing**: Its presence underscores the importance of connectivity and interaction in remote learning environments. Video conferencing facilitates real-time communication and collaboration, vital in a digitally connected world.

9. **Virtual Meetings**: Although less frequent, they play a crucial role in maintaining the continuity of education and collaboration in various scenarios, such as during distance learning or global collaborations.

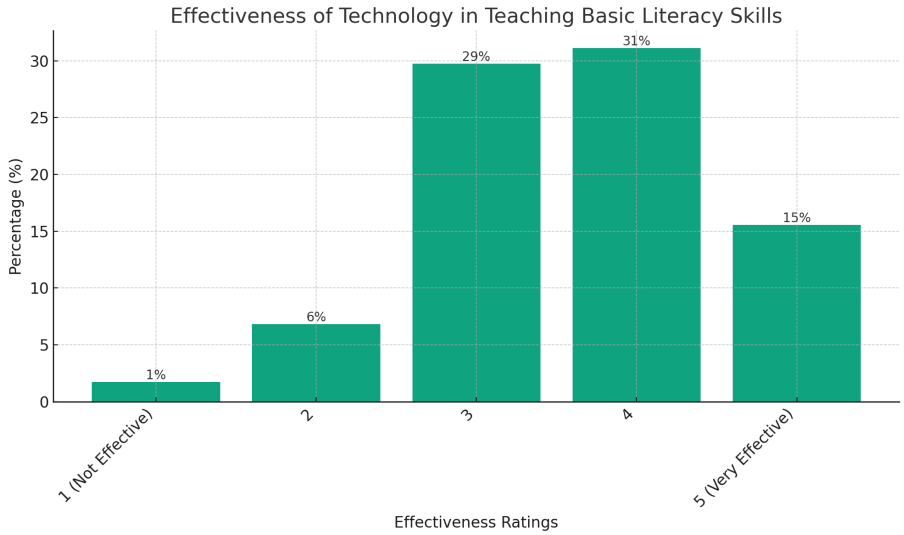
Analysing these pedagogical technology strategies reveals a multifaceted landscape where digital tools are supplementary and integral to the educational experience. They cater to various aspects of learning, from content delivery and skill development to creative expression and global connectivity. The trend

towards interactive, personalised, and experiential learning is evident. This shift underlines the importance of integrating technology to enrich the learning experience, ensuring that students are not only consumers of information but also active participants in their educational journey. Technology integration in education is shaping a future where learning is more accessible, engaging, and aligned with the skills required in the modern world.

Section 6: Literacy and Numeracy Skills

This section is designed to understand how the respondents use technology for teaching basic literacy and numeracy skills. Their responses will provide insights into the current practices and potential areas for integrating more technology.

In your opinion, how effective is technology in teaching basic literacy skills?



The responses to the question provide insights into the perceived impact of technology in this critical area of education. The following are the observations:

1. **Ratings 4 and 3 Lead (31% and 29% respectively)**: The majority of the respondents find technology either effective (rating 4) or moderately effective (rating 3) in teaching basic literacy skills. This indicates a generally positive sentiment towards the role of technology in literacy education. The high rating for effectiveness might be attributed to the interactive and engaging nature of technological tools, which can make learning more appealing and accessible, especially for younger students or those with diverse learning needs.

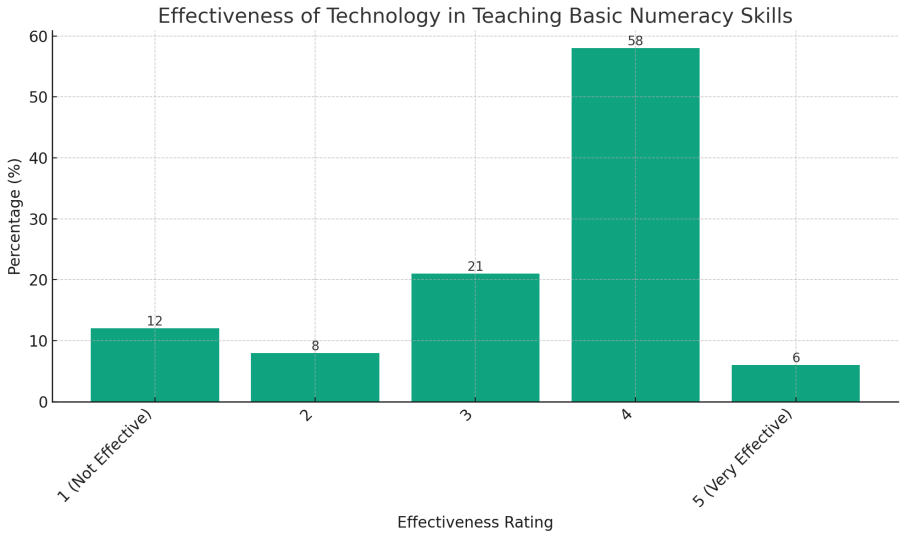
2. **Rating 5 (15%)**: A significant portion of the respondents consider technology very effective. This suggests that when implemented correctly, technology can significantly enhance literacy learning through personalised learning approaches, engaging multimedia content, and interactive educational apps that cater to different learning styles.

3. **Rating 2 (6%) and Rating 1 (1%)**: A smaller segment of respondents perceive technology as less effective or ineffective in teaching basic literacy skills. This could reflect challenges such as lack of access to adequate technology, insufficient educational training, or the need for more effective integration of technology with traditional teaching methods.

The data underscores the importance of technology in modern education, particularly in teaching basic literacy skills. The positive responses (ratings 3, 4, and 5) collectively suggest that a significant majority view technology as a beneficial tool in literacy education. The effectiveness of technology in this domain can be attributed to its ability to provide diverse and multimodal learning experiences. Technologies like educational apps, e-books, and interactive games can supplement traditional teaching methods, providing varied and engaging ways to learn reading and writing. The moderate to low ratings (1 and 2) indicate that while technology has benefits, it is not a one-size-fits-all solution. Challenges such as the digital divide, teacher training in technology integration, and balancing technology with traditional pedagogies must be addressed. The results of rating 3 and below might suggest that while technology is beneficial, its impact on teaching basic literacy skills has yet to be perceived as transformative for all. This could be due to varying levels of technology integration across different educational settings or the need for more innovative and tailored technological solutions in literacy education.

The analysis suggests a generally positive perception of technology's role in teaching basic literacy skills, with a majority leaning towards its effectiveness. However, it also highlights the need for careful implementation, ensuring equitable access, and ongoing support for educators to maximise the potential of technology in literacy education. As technology continues to evolve, its integration into literacy education needs to be continuously evaluated and adapted to ensure it meets the diverse needs of learners and complements traditional teaching methods effectively.

In your opinion, how effective is technology in teaching basic numeracy skills?



The graph provides a visual representation of the perceived effectiveness of technology in teaching basic numeracy skills, based on a survey where respondents rated the effectiveness on a scale from 1 (not effective at all) to 5 (very effective). The following are the key insights:

1. **Highly Effective (Rating 4: 58%)**: The majority of respondents (58%) believe that technology is highly effective (rating 4) in teaching basic numeracy skills. This indicates a strong confidence in technology's role in enhancing mathematical education. The interactive and engaging nature of digital tools, such as educational software and apps, likely contributes to this perception by making abstract concepts more tangible and accessible.

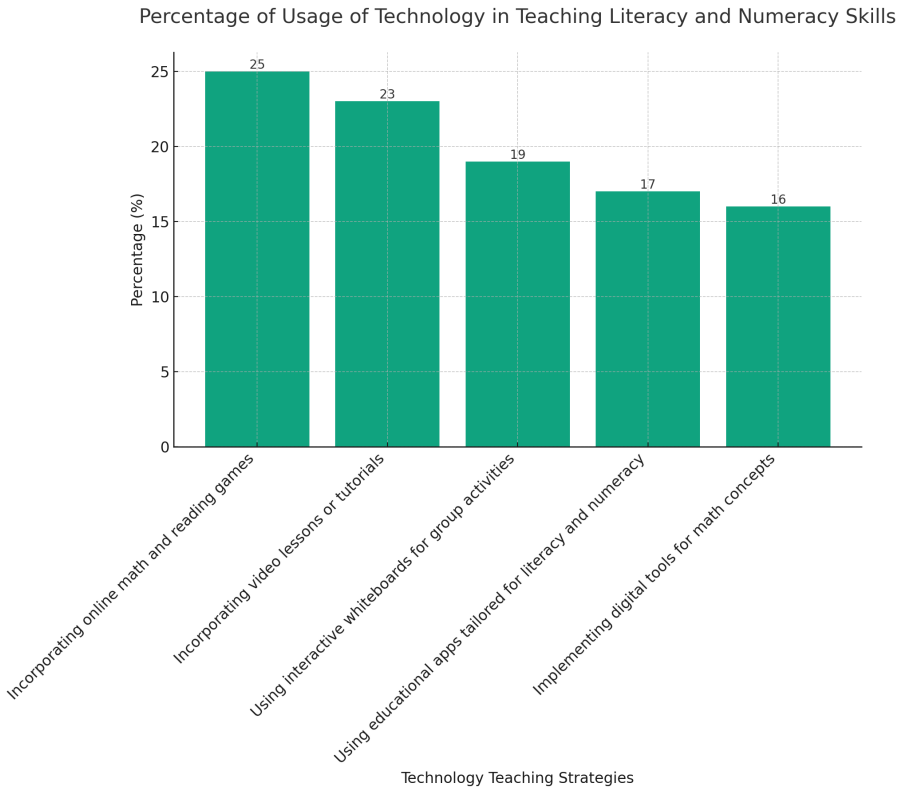
2. **Moderately Effective (Rating 3: 21%)**: A significant portion of the respondents (21%) rate technology as moderately effective (rating 3). This suggests that while technology is viewed positively, there may be some reservations about its impact or limitations in specific educational contexts. It could indicate the need for more tailored or advanced technological solutions or point to gaps in how technology is currently implemented in numeracy education.

3. **Least Effective (Ratings 1 and 2: 20%)**: A combined 20% of respondents perceive technology as not very effective (12% for rating 1 and 8% for rating 2) in teaching basic numeracy skills. This perspective might stem from a variety of factors, such as lack of access to quality technological resources, inadequate training for educators in using tech tools effectively, or a preference for traditional teaching methods in numeracy.

4. **Very Effective (Rating 5: 6%)**: A smaller group (6%) considers technology to be very effective (rating 5). This group likely consists of individuals who have witnessed or experienced the best of what educational technology can offer, possibly in environments where cutting-edge tools and methods are employed.

The data reflects a generally positive attitude towards using technology in teaching basic numeracy skills, with a majority leaning towards high effectiveness. However, the varied responses also highlight the need for a balanced and nuanced approach to integrating technology into education. For technology to be fully effective, it must be paired with sound pedagogical practices and accessible to all learners. Educators need to be equipped not only with the tools but also with the skills to use them effectively. Additionally, the technology used should be appropriate for the learning objectives and the learners' needs. While technology has the potential to enhance the teaching and learning of basic numeracy skills significantly, its success depends on thoughtful implementation, inclusive access, and continuous adaptation to educational needs and advancements.

How do you use technology to teach basic literacy and numeracy skills?



The replies to this question offer insights into the preferred technological approaches in current educational settings. The following is the analysis:

1. **Incorporating Online Math and Reading Games**: This strategy leads, highlighting the significant role of gamification in education. These games blend learning with entertainment, enhancing student engagement and motivation. They effectively reinforce concepts in an enjoyable manner, making complex topics more approachable.

2. **Incorporating Video Lessons or Tutorials**: The high usage of video lessons suggests their effectiveness in providing clear and concise explanations. Videos cater to visual and auditory learners, allowing students to learn at their own pace by pausing, rewinding, and revisiting the content.

3. **Using Interactive Whiteboards for Group Activities**: The popularity of interactive whiteboards underscores their versatility in teaching. They support collaborative learning, allowing students to engage with content and participate in group activities, which enhances understanding and retention.

4. **Using Educational Apps Tailored for Literacy and Numeracy**: Educational apps offer personalised learning experiences. Their adaptability to individual student needs, such as varying difficulty levels and progress tracking, makes them an essential tool in modern classrooms.

5. **Implementing Digital Tools for Math Concepts**: Digital tools like online calculators, interactive games, and virtual manipulatives facilitate understanding math concepts. They allow students to visualise and interact with abstract ideas, making math more tangible and less intimidating.

The analysis indicates a diverse and dynamic use of technology in teaching basic literacy and numeracy skills. The leading strategies, particularly online games and video tutorials, reflect a trend towards more engaging, interactive, and student-centred learning methods. These tools not only make learning more accessible but also cater to various learning styles, ensuring that students receive a well-rounded education. The data also points to the importance of incorporating technology that promotes individual learning and group collaboration. This balance is vital in preparing students for a future where digital literacy and collaborative skills are paramount. Overall, technology integration in education is evolving to create more inclusive, engaging, and effective learning environments. By leveraging these tools, educators can enhance the learning experience, making it more relevant, interactive, and enjoyable for students.

What additional resources or technologies could enhance your teaching of these skills?

In response to the question of what additional resources or technologies could enhance the teaching of certain skills, the data provided suggests a variety of innovative tools and methodologies. Let's elaborate on each technology and provide examples to illustrate their potential in educational settings.

1. **Interactive Whiteboards for Dynamic Lessons**: Interactive whiteboards, such as SMART Boards, are a pivotal technology. They transform traditional chalkboard teaching into an interactive experience. For instance, in a geography lesson, instead of static maps, teachers can display interactive world maps, allowing students to zoom in on different countries and explore various geographical features interactively.

2. **Adaptive Learning Software for Personalised Learning Paths**: Tools like Khan Academy offer adaptive learning experiences. They tailor the difficulty and style of content based on individual student performance. For example, in a mathematics class, such software can provide more challenging problems to students who excel, while offering more foundational problems with supportive tutorials to those who need extra help.

3. **Virtual Reality (VR) Experiences for Immersive Learning**: VR can be used to create immersive educational experiences. Imagine a history class where students can put on VR headsets and virtually walk through ancient Rome, observing its architecture and daily life, significantly enhancing their understanding and retention of historical knowledge.

4. **Augmented Reality (AR) Apps for Hands-on Learning**: AR apps like Google Expeditions can augment physical environments with digital overlays. In a biology class, students might point their devices at a textbook illustration of a human heart, and the AR app could bring it to life, showing the heart beating and how blood flows through it.

5. **Online Collaboration Tools for Group Projects**: Tools such as Google Classroom or Microsoft Teams enable students to work together on projects remotely. Students working on a group science project, for instance, can collaborate on research, share documents, and communicate in real-time, irrespective of their physical location.

6. **Digital Assessment Tools for Instant Feedback**: Platforms like Quizlet allow for the creation of digital quizzes and tests that offer instant feedback. This instant grading not only saves time for teachers but also allows students to quickly understand their mistakes and learn from them.

7. **Extended Reality (XR) Applications for Practical Learning**: XR, a combination of VR and AR, can be utilised for more complex simulations. For example, imagine a game where you can build a castle or a zoo with virtual blocks or animals. You can see and move around these blocks or animals as if they were real, all while staying safe in your classroom or home.

8. **Floor Robots and Coding Apps**: In teaching programming and robotics, tools like Sphero or LEGO Mindstorms can be invaluable. Students can learn coding by programming these robots to navigate mazes, which makes learning programming concepts more engaging and tangible.

9. **Devices for Student Use in Class**: Providing students with tablets or laptops can facilitate a range of interactive and personalised learning activities. For instance, in a language class, students could use language learning apps like Duolingo to practice their skills at their own pace.

10. **Other Technologies**: Emerging technologies such as 3D printing are also worth considering. 3D printing, for instance, can bring concepts to life in subjects like engineering and design, where students can design and print 3D models.

The integration of these technologies into educational settings has the potential to transform traditional teaching methods. They offer more interactive, personalised, immersive learning experiences, which can cater to diverse learning styles and enhance students' understanding and engagement with the subject matter.

How do you feel about the impact of technology on your workload?

The replies collected reflect a wide range of opinions from educators regarding the impact of technology on their workload. The responses vary from finding technology beneficial and enhancing to feeling overwhelmed and stressed by it. Here's a summary categorising the general sentiments:

1. **Positive Impact and Efficiency**: A significant number of educators acknowledge the positive impact of technology on their workload. They appreciate the efficiency and organisation it brings, citing that technology makes lessons more interesting and engaging, facilitates collaborative teaching and learning, and provides a variety of resources. Examples include using online platforms for lesson planning, leveraging digital resources for interactive learning, and utilising educational software to streamline administrative tasks.

2. **Increased Workload but Valuable**: Many responses indicate that while technology increases the workload due to the need for planning, preparation, and staying updated with new tools, the overall impact is beneficial. Educators find the extra effort worthwhile for the enhanced learning experience it provides to students. This includes creating digital content, integrating various tech tools into lessons, and adapting to constantly evolving educational technologies.

3. **Need for Training and Familiarity**: A common theme is the necessity for adequate training and the need to become more adept at integrating technology. Educators express a willingness to embrace technology if they receive proper training and support, highlighting a gap between the potential of technology and the current ability of educators to fully utilise it.

4. **Time-Consuming Preparation**: Preparing technological resources is mentioned as time-consuming. Educators note that while technology offers many innovative ideas, the limited time available makes it challenging to implement these effectively. This includes developing new teaching materials using technology, experimenting with different tech tools, and adapting them to specific lesson plans.

5. **Mixed Feelings - Stress and Overwhelm**: A portion of the responses express feelings of stress and being overwhelmed, mainly due to the rapid pace of technological change and the pressure to constantly update skills and lesson plans. Concerns about maintaining a balance between technology and traditional teaching methods are also mentioned.

6. **Facilitates Teaching but Requires Adaptation**: Some educators find that technology facilitates teaching but acknowledge that it requires a period of adaptation. They mention that once familiar with certain technologies, they can significantly lighten the workload.

7. **Concerns about Reliability and Dependence**: There are concerns about over-reliance on technology, with mentions of issues like power outages and technical glitches. Educators express the need for a balanced approach to technology in education, ensuring that teaching is effective even when technology fails.

8. **Classroom Management and Student Engagement**: Technology is seen as a tool for enhancing student engagement and making learning more appealing. The use of interactive methods and digital tools is credited with increasing student attention and motivation.

The responses indicate that while technology is generally viewed as a beneficial tool in education, its integration presents challenges such as increased workload, the need for continuous learning and adaptation, and balancing technological and traditional teaching methods. The overarching sentiment is one of cautious optimism, with a recognition of the potential benefits of technology in education tempered by concerns over its practical implementation and impact on workload.