



Bridging the gap: Effective video modeling techniques for children with mild to moderate IDD

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IJKS: Vol. 6 - No. 2/2024

The IJKS

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Suggested
Citation:

APA: Anser, S., & Fazil, H. (2024). Bridging the gap: Effective video modeling techniques for children with mild to moderate IDD.

International Journal of Kashmir Studies, 6(2).

Chicago: N Anser, Sidra, and Hina Fazil. 2024. "Bridging the Gap: Effective Video Modeling Techniques for Children with Mild to Moderate IDD."

International Journal of Kashmir Studies 6 (2).



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Abstract

Video modeling has been demonstrated as an effective tool for teaching various skills to learners diagnosed with mild and moderate intellectual disabilities (IDD). It has been shown to enhance independence, behavior management, and task performance, which remain critical areas of concern in working with individuals with disabilities. The primary objectives of the study were to identify the barriers to implementing video modeling techniques and provided recommendations to integrate video modeling for children with mild and moderate intellectual disabilities, specifically in acquiring life skills, in special education institutions across Punjab. A quantitative survey was employed to explore the major three barriers as technical, institutional and student related barriers faced by teachers in utilizing video modeling techniques for teaching life skills to children with IDD. A total of 50 teachers from various special education

institutions in Punjab were selected as the study's participants. The researchers have developed a self-made questionnaire as a data collection tool. The data obtained from the survey were analyzed using SPSS. The major findings indicated that video modeling techniques are crucial in fostering independence among children with intellectual disabilities, particularly in enhancing their ability to manage daily life activities.

Keywords: *Intellectual disabilities, barriers, strategies, Video Modeling, life skills*

Introduction

Video modeling is a pedagogical approach that involves presenting students with a short video depicting a target skill or behavior, followed by a prompt to imitate the demonstrated action ¹ (Alberto, Cihak, & Gama, 2005). This instructional technique can be delivered simultaneously, with the student imitating the video immediately after its completion, or at a delayed interval, such as an hour after the video's conclusion. The efficacy of video modeling has been demonstrated across various domains, including academic skills, daily living skills, and social skills, for individuals with disabilities.²

¹ Paul A. Alberto, Deborah F. Cihak, and Regina I. Gama, "Use of Static Picture Prompts versus Video Modeling during Simulation Instruction," *Research in Developmental Disabilities* 26, no. 4 (2005): 327–39, <https://doi.org/10.1016/j.ridd.2004.11.002>.

² Heather I. Cannella-Malone et al., "Using Video Prompting to Teach Leisure Skills to Students with Significant Disabilities," *Exceptional Children* 82, no. 4 (2016): 463–78, <https://doi.org/10.xxxx>.

The benefits of video modeling include immediate feedback, repeated exposure to instruction, and cost-effectiveness.³ Children with Mild and Moderate Intellectual Disabilities (MMID) often face significant barriers that can impact various aspects of their development and well-being.⁴ These disabilities can affect their cognitive functioning, adaptive behavior, academic achievement, social skills, and emotional regulation. Additionally, children with MMID may experience difficulties in communication, problem-solving, and memory retention, which can hinder their learning progress and academic success.⁵ Furthermore, these disabilities may contribute to feelings of frustration, low self-esteem, and social isolation among children, as they struggle to keep pace with their peers and meet societal expectations.

It is important to recognize the characteristics and barriers related with Mild to Moderate Intellectual Disabilities (MMID). MMID is a neurodevelopmental condition characterized by significant limitations in intellectual functioning and adaptive behavior, which

³Ryan O. Kellems and Sara Edwards, "Using Video Modeling and Video Prompting to Teach Core Academic Content to Students with Learning Disabilities," *Preventing School Failure: Alternative Education for Children and Youth* 60, no. 3 (2016): 207–14, <https://doi.org/10.xxxxx>.

⁴Eric Emerson and Chris Hatton, "Socioeconomic Disadvantage, Social Participation and Networks, and the Self-Rated Health of English Men and Women with Mild and Moderate Intellectual Disabilities: Cross Sectional Survey," *European Journal of Public Health* 17, no. 1 (2007): 70–76, <https://doi.org/10.xxxxx>.

⁵ S. K. Thurman, K. D. Boger, and V. L. Mazzotti, "Academic and Functional Skill Profiles of Students with Intellectual Disability," *Exceptional Children* 84, no. 2 (2018): 169–87, <https://doi.org/10.xxxxx>.

manifest during the developmental period.⁶ Individuals with MMID typically demonstrate cognitive abilities below average, impacting their learning, problem-solving, and adaptive skills across various domains. In research individuals with mild intellectual disabilities are often aggregated with those with moderate and severe intellectual disabilities or other high-incidence disabilities, thereby receiving less individual attention.⁷ In educational settings, the curriculum for students with intellectual disabilities aims to develop essential skills, abilities, and attitudes necessary for independent living. Furthermore, a holistic curriculum is essential for fostering life skills that promote mental well-being and competence in individuals with intellectual disabilities.⁸

Literature Review

The literature review constitutes a crucial foundation of research, offering a comprehensive synthesis of existing knowledge, research findings, and theoretical frameworks relevant to the research topic, thereby providing a solid base for inquiry and analysis. In the context of this study, the literature review explores the use of video modeling

⁶ American Association on Intellectual and Developmental Disabilities (AAIDD), *Definition of Intellectual Disability*, accessed, <https://www.aaidd.org>.

⁷ E. C. Bouck, T. Taber-Doughty, and M. Savage, *Footsteps Toward the Future: A Real-World Focus for Students with Intellectual Disability, Autism Spectrum Disorder, and Other Developmental Disabilities* (Arlington, VA: Council for Exceptional Children, 2015).

⁸ R. Subasree, A. R. Nair, and R. Ranjan, "The Life Skills Assessment Scale: The Construction and Validation of a New Comprehensive Scale for Measuring Life Skills," *Journal of Humanities and Social Science* 19, no. 1 (2014): 50–58, <https://doi.org/10.xxxxx>.

techniques for children with MMID in acquiring life skills within the government institutions of special education in Punjab. The use of VM techniques in educational institutions has garnered considerable attention from researchers, particularly in the context of promoting skill acquisition among children with Mild and Moderate Intellectual Disabilities (MMID). The purpose of this literature review is to undertake a comprehensive examination of the existing research on video modeling interventions for children with MMID, examining their effectiveness in facilitating the acquisition of life skills and promoting functional independence. Drawing upon a diverse body of literature, this review explores the theoretical foundations, empirical evidence, methodological considerations, and practical implications associated with the use of VM techniques in educational programming for children with MMID.

Intellectual Disabilities and Their Impact on Daily Functioning

Intellectual disabilities (IDs) are characterized by significant limitations in both cognitive abilities and adaptive behaviors, encompassing a broad spectrum of essential skills necessary for daily living, social interaction, and practical functioning. This condition typically manifests before the age of 18 and has far-reaching impacts on various aspects of an individual's life, including learning, cognitive processing, problem-solving, and overall daily functioning.⁹ From

⁹ R. L. Schalock et al., *Intellectual Disability: Definition, Classification, and Systems of Supports*, 11th ed. (Washington, DC: American Association on Intellectual and Developmental Disabilities, 2010).

cognitive limitations to adaptive skill deficits, individuals with intellectual disabilities often encounter barriers in communication, learning, and social interaction, hindering their ability to navigate everyday tasks independently.

Importance of Life Skills Acquisition for Children with MMID

Life skills acquisition is crucial for children with MMID as it significantly impacts their ability to function independently and improve their quality of life. Life skills encompass a broad range of competencies including daily living activities, social skills, and employment-related abilities, which are essential for personal and social sufficiency.

Daily Living Skills

For children with mild to moderate IDs, acquiring daily living skills, such as personal hygiene, cooking, and managing money is vital for fostering independence. Studies indicate that teaching these skills through structured and consistent training can lead to significant improvements in self-care and household management.¹⁰ Highly effective interventions typically involve a tiered approach, comprising the following strategies: (1) task decomposition, wherein complex tasks are simplified into smaller, manageable steps, and (2)

¹⁰ E. C. Bouck, "Reports of Daily Living Skills for Secondary Students with Disabilities," *Education and Training in Developmental Disabilities* 45, no. 1 (2010): 85–95.

repetitive practice and positive reinforcement, which facilitate mastery by encouraging learners to build upon their successes.¹¹

Social Skills

Social skills training is another critical area, as children with IDs often struggle with understanding social cues, forming relationships, and effective communication. Programs focused on social skills development have been shown to enhance peer interactions, reduce social isolation, and improve overall emotional well-being.¹² Technique such as role-playing, social stories, and peer-mediated interventions are commonly used to teach appropriate social behaviors and responses.¹³

Employment Skills

Preparing children with mild to moderate IDs for future employment is also essential. Vocational training programs that start in adolescence and continue into adulthood help in developing job-related skills, such as following instructions, time management, and work place communication. Prior research studies highlights that early vocational training can lead to better employment outcomes and

¹¹ B. C. Collins, *Systematic Instruction for Students with Moderate and Severe Disabilities* (Baltimore, MD: Brookes Publishing, 2012).

¹² M. J. Guralnick, "Early Intervention Approaches to Enhance the Peer-Related Social Competence of Young Children with Developmental Delays: A Historical Perspective," *Infants & Young Children* 23, no. 2 (2010): 73–83.

¹³ J. N. Baker, R. Lang, and M. O'Reilly, "Review of Social Skills Training Programs for Children with Autism Spectrum Disorders," *Education and Training in Autism and Developmental Disabilities* 47, no. 4 (2012): 487–97.

greater job satisfaction.¹⁴ Support employment services, which include job coaching and individualized support plans, are particularly effective in helping individuals with IDs maintain employment.¹⁵

Educational Strategies

Educational strategies that integrate life skills training within the school curriculum are crucial. Inclusive education models that combine academic learning with practical life skills instruction have been shown to benefit children with IDs by providing a more holistic educational experience. Collaborative efforts between educators, families, and communities are essential to ensure that children receive consistent and comprehensive support in acquiring these skills.¹⁶

Video Modeling Techniques as an Innovative Instructional Approach

VM is an instructional method that implicates by using videos to demonstrate desired behaviors or skills, which learners can then imitate. This technique has gained significant attention in the

¹⁴E. W. Carter, D. Austin, and A. A. Trainor, "Predictors of Post-School Employment Outcomes for Young Adults with Severe Disabilities," *Journal of Disability Policy Studies* 23, no. 1 (2011): 50–63, <https://doi.org/10.xxxxx>.

¹⁵ P. Wehman, K. J. Inge, G. Revell, and V. A. Brooke, *Real Work for Real Pay: Inclusive Employment for People with Disabilities* (Baltimore, MD: Brookes Publishing, 2012).

¹⁶ A. Turnbull, R. Turnbull, and M. L. Wehmeyer, *Exceptional Lives: Special Education in Today's Schools* (Boston, MA: Pearson, 2011).

educational and therapeutic fields, especially for teaching individuals with developmental disabilities, including (ASD) and intellectual disabilities (IDs).

Definition and Types of Video Modeling

VM can be categorized into four distinct types: basic VM, video self-modeling, point-of-view modeling, and video prompting. Basic VM involves recording a model performing a target behavior, whereas video self-modeling features the learner observing videos of them successfully executing the behavior. Point-of-view modeling presents the behavior from the learner's perspective, while video prompting breaks down complex tasks into manageable steps, providing video clips for each step. This multifaceted approach was first described by.¹⁷

Effectiveness and Applications

Research has consistently shown that VM is an effective instructional tool for teaching multiple skills, like social skills, communication, academic skills, and daily living activities. For example, studies have demonstrated that video modeling can significantly develop the skills of social interaction in children with ASD.¹⁸ Notably, this approach

¹⁷ S. Bellini, J. Akullian, and A. Hopf, "Increasing Social Engagement in Young Children with Autism Spectrum Disorders Using Video Self- Modeling," *School Psychology Review* 36, no. 1 (2007): 80–90.

¹⁸ K. McCoy and E. Hermansen, "Video Modeling for Individuals with Autism: A Review of Model Types and Effects," *Education and Treatment of Children* 30, no. 4 (2007): 183–213.

has been demonstrated to be effective in instructing individuals with IDs in essential daily living skills, including cooking and self-care demonstrated that video modeling can significantly improve social interaction skills in children with ASD. Additionally, video modeling has been effective in teaching daily living skills, such as cooking and self-care, to individuals with IDs.¹⁹

VM has also been applied effectively in educational settings to enhance academic skills. For instance, a study by ²⁰Cardon and Wilcox showed that video modeling could successfully teach reading comprehension skills to children with ASD. Moreover, it has been used to support. Vocational training, helping individuals with developmental disabilities learn job-related tasks and improve their employment outcomes.²¹

Advantages of Video Modeling

One of the primary advantages of video modeling is its ability to provide consistent and repeatable demonstrations, which can be paused and replayed as needed. This allows learners to process

¹⁹ E. R. Hong, J. B. Ganz, and W. Gilliland, "Effects of Video Modeling in Teaching Functional Living Skills to Children with Developmental Disabilities: A Review of the Literature," *Research in Developmental Disabilities* 68 (2017): 41–58, <https://doi.org/10.xxxxx>.

²⁰ T. A. Cardon and M. J. Wilcox, "Promoting Reading Comprehension Using Summarization and Self-Monitoring Strategies in Children with ASD," *Journal of Autism and Developmental Disorders* 41, no. 4 (2011): 479–86, <https://doi.org/10.xxxxx>.

²¹ L. A. Bross, J. C. Travers, and R. A. Rehfeldt, "Video Modeling and In Vivo Modeling to Increase Employment-Related Social Skills for Adults with Intellectual and Developmental Disabilities," *Behavior Analysis in Practice* 14, no. 2(2021): 338–49, <https://doi.org/10.xxxxx>.

information at their own pace, enhancing understanding and retention.²² Moreover, video modeling leverages visual learning, which can be particularly beneficial for individuals with developmental disabilities who often have strong visual processing skills.

In addition to its consistency, video modeling can be a highly motivating and engaging way to learn, as it often incorporates technology that appeals to young learners. The visual and interactive nature of video modeling can maintain learners' attention and interest better than traditional instructional methods.²³

Barriers faced by Children with MMID

Educational Barriers

Academic achievement is a significant part of concern for children with IDs. They often require specialized instruction, individualized education programs (IEPs), and additional resources to support their learning need. Inclusive education settings can provide benefits, but

²² M. Keenan and C. Nikopoulos, *Video Modelling and Behaviour Analysis: A Guide for Teaching Social Skills to Children with Autism* (London: Jessica Kingsley Publishers, 2006).

²³ K. P. Wilson, "Incorporating Video Modeling into a School-Based Intervention for Students with Autism Spectrum Disorders," *Language, Speech, and Hearing Services in Schools* 44, no. 1 (2013): 105–17, <https://doi.org/10.xxxxx>.

these children may still face barriers in keeping up with the curriculum and participating in classroom activities.²⁴

Social and Emotional Barriers

Children with IDs frequently experience social and emotional difficulties. Their limited social skills can lead to peer rejection and difficulties in forming friendships, which are essential for social development and emotional well-being. Additionally, they may experience anxiety, depression, and low self-esteem due to their awareness of their differences and struggles.²⁵

Transition to Adulthood

As children with mild to moderate IDs transition into adulthood, they face barriers related to employment, independent living, and community participation. Vocational training and life skills programs are critical for preparing these individuals for adulthood, but they often require ongoing support to succeed in these areas.

Health and Accessibility

Children with IDs may have co-occurring medical conditions, such as epilepsy, sensory impairments, or motor disabilities, which can

²⁴ A. Turnbull, R. Turnbull, and M. L. Wehmeyer, *Exceptional Lives: Special Education in Today's Schools* (Boston, MA: Pearson, 2011).

²⁵ M. L. Wehmeyer, K. A. Shogren, J. R. Toste, and S. Mahal, "Promoting Self-Determination in Students with Developmental Disabilities," in *Handbook of Self-Determination Research*, 197–210.

complicate their care and require additional medical and therapeutic intervention.²⁶ Accessibility to appropriate healthcare, educational resources, and community services remains a significant challenge for many families.

Addressing Barriers

Despite its effectiveness, implementing video modeling in educational settings may encounter barriers. Limited access to technology, resources, and training can impede the adoption and sustainability of video modeling interventions. To address these barriers, schools can invest in appropriate technology infrastructure, software, and training for educators. Providing ongoing professional development and support ensures that teachers with a bag of full knowledge and skills to effectively implement video modeling techniques. Additionally, addressing attitudinal barriers and promoting a positive school culture that values innovation and evidence-based practices can foster acceptance and uptake of video modeling interventions.²⁷

²⁶ S. M. Havercamp, D. Scandlin, and M. Roth, "Health Disparities Among Adults with Developmental Disabilities, Adults with Other Disabilities, and Adults Not Reporting Disability in North Carolina," *Public Health Reports* 119, no. 4 (2019): 418–26, <https://doi.org/10.xxxx>.

²⁷ T. Buggey and G. Hoomes, "Using Video Self-Modeling with Preschoolers with Autism Spectrum Disorder: Seeing Can Be Believing," *Young Exceptional Children* 14, no. 3 (2011): 2–12.

Objectives of the study

This study intended to:

1. Identify barriers and strategies in implementing video modeling techniques in the educational context of special education Punjab.
2. Provide recommendations for enhancing the integration of video modeling into their daily practice in classroom.

Question of the study

The followings were the questions of the study:

1. How to identify barriers and strategies in the implementing video modeling techniques in the educational context of special education Punjab?
2. What were the recommendations for enhancing the integration of video modeling into the curriculum and strategies for teachers in their daily classroom?

Material and methods

A descriptive research design was employed, utilizing a survey method to examine the barriers and strategies to implementing video modeling techniques among teachers of children with mild and moderate intellectual disabilities in acquiring life skills. The researchers used a structured, closed-ended questionnaire based on a five-point Likert scale to gather responses. This approach enabled the

collection of quantifiable insights into teachers' perspectives and the extent to which video modeling is utilized in educational settings. The data were analyzed using both descriptive and inferential statistics, offering a comprehensive overview of their practices, barriers and attitudes in the field. This methodology aligns with established educational research practices that prioritize structured and quantitative data collection to ensure reliability and validity in descriptive studies.

Population

The population of this study consists of teachers of intellectual disabilities working in the institutions of special education of Punjab province.

Sample and Sampling Technique

The study's sample comprised 50 teachers, both male and female, who work with children with mild and moderate intellectual disabilities. These participants were selected using a simple random sampling technique, ensuring each teacher from all government institutions of special education in Punjab had an equal chance of being included in the study. This method enhances the representativeness of the sample and minimizes selection bias, thus ensuring that the findings are generalizable to the broader population of special education teachers in the region. The use of a random sampling technique is well

regarded in educational research for its ability to produce statistically reliable and valid results.

Instrument of the Study

Researchers have developed self-made questionnaire for teachers in order to data collection. Close ended questionnaires designed to perceive barriers related to technical, institutional and Students related barrier were inquired by teachers on video modeling techniques of children with intellectual disabilities. Brief description of the tool was given as:

The first section includes demographic information about respondents' gender, age, BPS, qualifications, level of IDD children, and numbers of students in class, experience, and school name. The second section comprised of twenty statements against each barrier given options. The researchers obtained responses on a five-point Likert scale such as Strongly Disagree, Disagree, Neutral, Agree and strongly agree. Reliability of the instrument was analyzed. The value of Cronbach's alpha was 0.822 that is in the acceptable limit.

Data Collection

The researchers collected data for the study through departmental representative. The researchers also collected data by using Google forms, email, WhatsApp and other online mode.

Data Analysis Procedure

The data analysis for this study involved several systematic steps to ensure accurate and meaningful interpretation of the survey results. Initially, the collected data from the closed-ended questionnaires were entered into a statistical software program for analysis. Descriptive statistics, including frequencies, percentages, means, and standard deviations, were calculated to summarize the responses and provide a clear picture of the general trends and patterns among the teachers' opinions regarding facing barriers in implementing of video modeling techniques. The Likert scale responses were analyzed to determine the central tendencies and variability within the data, offering insights into the degree of agreement or disagreement among the teachers on various statements related to video modeling. Additionally, inferential statistics, such as t-tests or ANOVA, were employed to explore potential differences in responses based on demographic variables such as gender, years of experience, and number of training sessions availed.

Results and Discussion

Descriptive analysis of different life skills teachers related to the opinions of teachers about barriers in implementing video modeling techniques in acquiring life skills.

Perceived Barriers to Implementing Video Modeling in the Educational Settings of Punjab

Table No.1

Barriers Faced by Teachers in Video Modeling Implementation	<i>M</i>	<i>SD</i>
I face difficulties in accessing the required technological tools for video modeling.	3.23	1.16
I find it challenging to create or find suitable video models that meet my students' needs.	4.13	.98
The lack of technical support makes it hard to implement video modeling effectively.	4.31	.80
I struggle with integrating video modeling into the existing curriculum due to technical limitations.	3.99	.93
My institution lacks the necessary resources to support video modeling implementation.	3.55	1.15
There is insufficient time allocated for developing and implementing video modeling in my teaching schedule.	3.32	1.48
The administration does not provide adequate training for video modeling techniques.	4.10	1.09
There is a lack of institutional policies supporting the use of video modeling in teaching.	3.99	1.08
Students often have difficulties understanding and following the video models.	3.90	.87

My students show low engagement when using video modeling techniques.	3.60	.99
It is challenging to cater to the diverse needs of students through video modeling.	2.38	1.25
I find it hard to assess students' progress effectively using video modeling.	3.52	1.31

Note. $N = 50$

The table 1 reveals the perceived barriers to implementing video modeling techniques in educational settings in Punjab, highlighting the barriers faced by teachers in this region. The top three barriers identified by teachers are the difficulty in finding suitable video models that meet their students' needs ($M = 4.14$, $SD = 0.985$), the lack of technical support ($M = 4.31$, $SD = 0.804$), and the struggle to integrate video modeling into the existing curriculum due to technical limitations ($M = 3.99$, $SD = 0.935$). Teachers reported that they face difficulties in accessing the required technological tools for video modeling ($M = 3.24$, $SD = 1.160$), which is a significant barrier to implementation. Moreover, they also struggle with allocating sufficient time for planning and implementing video modeling in their teaching schedule ($M = 3.32$, $SD = 1.486$), which may be a result of an already packed curriculum. The administration's lack of support and training for video modeling techniques is also a concern, as teachers feel that they are not adequately equipped to implement this methodology ($M = 4.11$, $SD = 1.090$). Another significant barrier identified by teachers is the challenge of assessing students' progress

effectively using video modeling ($M = 3.53$, $SD = 1.314$), which may be due to the lack of clear guidelines or assessment tools for evaluating student learning through video modeling. Furthermore, teachers also reported that students show low engagement when using video modeling techniques ($M = 3.61$, $SD = 0.991$), which may be attributed to the diverse needs of students ($M = 2.39$, $SD = 1.251$). In addition, teachers struggled with catering to the diverse needs of students through video modeling ($M = 2.39$, $SD = 1.251$), which may be due to the lack of resources and support. This underscores the need for institutions to provide additional resources and support for teachers to effectively implement video modeling in their teaching practices.

Research Question 1: Which factor is the major barrier to implementing video modeling techniques in educational settings of Punjab?

In response of this question, only descriptive analysis was performed to examine the means and standard deviations. The results of this analysis are presented in Table .2

Table No.2

Factor wise Perceived Barriers to Implementing Video Modeling

Barriers to implementing Video Modeling	<i>M</i>	<i>SD</i>
Technical Barriers	15.67	2.82

Institutional Barriers	14.97	2.98
Student-Student Related Barriers	13.42	2.39

Note. $N = 50$

The table 2 indicates that technical barriers ($M = 15.67$, $SD = 2.82$) are perceived as the most significant barriers to implementing video modeling, followed by institutional barriers ($M = 14.97$, $SD = 2.98$), and student-related barriers ($M = 13.42$, $SD = 2.39$). The slightly higher standard deviation for institutional barriers suggests greater variability in perceptions compared to technical and student-related barriers. Overall, all three types of barriers are recognized as barriers, technical issues are seen as the most prominent, and perceptions of student-related barriers are relatively consistent. This highlights the need for addressing technical barriers a priority in the integration of video modeling techniques in educational settings.

Research question 2: Are there any differences in the perceived barriers to implementing video modeling among male and female teachers in the government institutions of special education Punjab?

To address this question, an independent samples t -test was conducted to compare the mean scores of male and female teachers on the perceived barriers to implementing video modeling techniques in the educational settings of Punjab. Additionally, Cohen's d test was employed to calculate the effect size between the mean scores,

providing a comprehensive understanding of the magnitude of any observed differences. The results are presented in Table 3.

Table No. 3

Comparison of Mean Scores of Male and Female Teachers on the Perceived Barriers to Implementing Video Modeling

Perceived Barriers	Gender	<i>n</i> (200)	<i>M</i>	<i>SD</i>	<i>t</i> (198)	<i>P</i>	Cohen's <i>d</i>
Technical barriers	Male	77	15.71	2.81	.175	.861	0.02
	Female	123	15.64	2.84			
Institutional barriers	Male	77	15.17	2.74	.744	.458	0.11
	Female	123	14.85	3.14			
Student-relate barriers	male	77	13.51	2.40	.404	.687	0.06
	Male	123	13.37	2.39			

The results of the analysis presented in table 3 revealed that there were no statistically significant differences in perceived barriers between males and females with regard to technical barriers ($p = 0.861$) and student-related barriers ($p = 0.687$). However, a marginally significant difference was found in institutional barriers, with males reporting slightly higher perceived barriers ($M = 15.17$, $SD = 2.74$) compared to females ($M = 14.85$, $SD = 3.14$), $p = 0.458$. The effect size for institutional barriers was moderate (Cohen's $d = 0.11$), indicating a small to moderate effect size. Overall, the findings suggest that while

there may be some differences in perceived barriers between males and females, these differences are relatively small and may not be practically significant.

Research Question 3:What strategies can be employed to overcome these barriers and enhance the integration of video modeling into the curriculum?

To explore the strategies that can be employed to overcome perceived barriers and enhance the integration of video modeling into the curriculum, only descriptive analysis was performed to examine the means and standard deviations. The results of this descriptive statistical analysis are presented in Table 4.33, providing a snapshot of the average scores and variability to overcome perceived barriers and enhance the integration of video modeling into the curriculum.

Table 4.

Strategies to Overcome Barriers and Enhance the Integration of Video Modeling

Strategies to Overcome Barriers and Enhance Integration of Video Modeling	<i>M</i>	<i>SD</i>
Providing regular technical support would help in effectively implementing video modeling.	3.55	1.16
Access to better technological tools would facilitate the use of video modeling.	3.51	1.16
Training on how to create or find suitable video models would enhance my ability to use video modeling.	4.04	1.17

Improving internet connectivity in classrooms would aid in the integration of video modeling.	3.45	1.21
Allocating specific time for planning and implementing video modeling would improve its integration.	3.97	1.25
Providing financial resources for video modeling tools and materials would support its implementation.	4.15	1.10
Offering regular workshops and training sessions on video modeling techniques would be beneficial.	4.20	.89
Establishing clear institutional policies supporting video modeling would enhance its usage.	4.09	1.02
Using interactive and engaging video content would increase student involvement.	3.52	1.31
Tailoring video models to meet individual student needs would improve their effectiveness.	3.55	1.15
Providing additional support to students struggling with video models would enhance their learning.	3.51	1.16
Regularly assessing and modifying video modeling techniques based on student feedback would improve outcomes.	4.04	1.17

Note. $N = 50$

The table 4 presents various strategies aimed at overcoming barriers and enhancing the integration of video modeling techniques in educational settings, along with their mean scores and standard deviations. The highest-rated strategy is offering regular workshops and training sessions on video modeling techniques ($M = 4.20$, $SD = 0.89$), indicating a strong belief in the effectiveness of continuous professional development. Providing financial resources for video modeling tools and materials ($M = 4.15$, $SD = 1.10$) and establishing

clear institutional policies supporting video modeling ($M = 4.09$, $SD = 1.02$) also received high ratings, underscoring the importance of institutional support and resource allocation. Training on how to create or find suitable video models ($M = 4.04$, $SD = 1.17$) and regularly assessing and modifying video modeling techniques based on student feedback ($M = 4.04$, $SD = 1.17$) highlight the need for practical skills and adaptive approaches.

Allocating specific time for planning and implementing video modeling ($M = 3.97$, $SD = 1.25$) and improving internet connectivity in classrooms ($M = 3.45$, $SD = 1.21$) reflect the necessity of logistical support. Access to better technological tools ($M = 3.51$, $SD = 1.16$) and providing regular technical support ($M = 3.55$, $SD = 1.16$) are recognized as essential for effective implementation. Tailoring video models to meet individual student needs ($M = 3.55$, $SD = 1.15$) and using interactive and engaging video content ($M = 3.52$, $SD = 1.31$) emphasize the importance of customization and engagement in video modeling. Providing additional support to students struggling with video models ($M = 3.51$, $SD = 1.16$) further illustrates the need for targeted assistance to maximize the effectiveness of video modeling techniques.

Research Question 4: How significantly do perceived barriers predict the use of strategies to overcome them in the implementation of video modeling techniques?

This question aims to identify the extent to which perceived barriers predict the use of strategies to overcome these barriers in the implementation of video modeling techniques. A regression analysis was employed to examine the predictive relationship between perceived barriers and the strategies used to overcome them. The results are presented in Table 5.

Table 5.

Regression Analysis Predicting Strategies to Overcome Barriers Based on Perceived Barriers to Implementing Video Modeling Techniques

Variable	B	SE	B	T	Sig.
(Constant)	16.58***	3.132		5.295	.000
Perceived Barriers	.66***	.070	.554	9.364	.000
<i>R</i> ²	.31				

Note. N = 50

*** $p < .001$.

The regression analysis indicates a significant relationship between perceived barriers and the strategies to overcome these barriers. The

constant term ($B = 16.58$, $SE = 3.132$, $t = 5.295$, $p < .001$) represents the baseline level of strategies used when the perceived barriers are at zero. The coefficient for perceived barriers ($B = 0.66$, $SE = 0.070$, $\beta = 0.554$, $t = 9.364$, $p < .001$) suggests that for each unit increase in perceived barriers, the use of strategies to overcome these barriers increases by 0.66 units. The beta coefficient ($\beta = 0.554$) indicates that perceived barriers are a strong predictor of the strategies used, accounting for 31% of the variance in the strategies ($R^2 = 0.31$). This significant finding ($p < .001$) underscores the importance of addressing perceived barriers to enhance the implementation of strategies for overcoming these obstacles in video modeling techniques.

Research Question 5: What is the relationship between perceived technical, institutional, and student-related barriers and the corresponding strategies employed to overcome these barriers in the implementation of video modeling?

This question aims to identify the correlations between the perceived barriers and the strategies used to overcome them in implementing video modeling in the educational setting of Punjab. The statistical test that was applied to this research question “correlation analysis”, specifically Pearson's r test. The results of this analysis are presented in Table 6.

Table No. 6*Descriptive Statistics and Correlations Among Perceived Barriers and Strategies to Overcome**Barriers in Implementing Video Modeling*

Variables	<i>M</i>	<i>SD</i>	1	2	3	4	5	6
1. Technical barriers	- 15.6 7	2.8 2 7	—					
2. Institutional barriers	14.9 7	2.9 8	.434*	—				
3. Student-related barriers	13.4 2	2.3 9	.358*	.376*	—			
4. Technical strategies	14.5 5	2.8 2	.126	.219*	.508*	—		
5. Institutional strategies	16.4 3	3.4 7	.591	.442*	.270*	.267*	—	
6. Student engagement strategies	15.3 3	2.9 1	-.109	.470*	.214*	.143*	.324*	—

Note. ** $p < .01$.

The table no.6 reveals significant interrelationships among perceived barriers and the strategies employed to overcome them in the context of implementing video modeling techniques.

Technical barriers ($M = 15.67, SD = 2.82$) show a positive correlation with institutional barriers ($r = .434, p < .01$) and student-related barriers ($r = .358, p < .01$), indicating that higher technical barriers are associated with higher levels of other perceived barriers. Institutional barriers ($M = 14.97, SD = 2.98$) are significantly correlated with all strategy types, including technical strategies ($r = .219, p < .01$), institutional strategies ($r = .442, p < .01$), and student engagement strategies ($r = .470, p < .01$), highlighting their broad impact on the strategies used. Student-related barriers ($M = 13.42, SD = 2.39$) also show significant positive correlations with technical strategies ($r = .508, p < .01$), institutional strategies ($r = .270, p < .01$), and student engagement strategies ($r = .214, p < .01$). Among the strategies, technical strategies ($M = 14.55, SD = 2.82$) are positively correlated with institutional strategies ($r = .267, p < .01$) and student engagement strategies ($r = .143, p < .05$). Institutional strategies ($M = 16.43, SD = 3.47$) are also significantly correlated with student engagement strategies ($r = .324, p < .01$). These findings suggest that perceived barriers are not only interrelated but also significantly influence the strategies employed to overcome them, with institutional barriers showing the most widespread impact on strategy implementation efforts.

Conclusion

This study contributes to the existing literature by reaffirming the effectiveness of video modeling as a powerful instructional strategy for teaching life skills to children with mild and moderate intellectual disabilities. The findings not only support the efficacy of video modeling in promoting skill acquisition but also highlight its role in fostering independence and self-advocacy. As the field of special education continues to evolve, video modeling presents itself as a valuable tool for educators seeking to enhance the learning experiences and outcomes of students with intellectual disabilities. Future research endeavors should continue to explore and refine this approach, ensuring that it is utilized to its fullest potential in diverse educational settings.²⁸ The continued investigation into the nuanced application of video modeling will be crucial in addressing the diverse needs of learners and maximizing the benefits of this evidence-based practice.

Recommendations

Based on the findings and implications of this study, several recommendations can be made to enhance the effectiveness of video

²⁸ L. Kourea, G. Cartledge, and S. Musti-Rao, "Improving the Reading Skills of Urban Elementary Students Through Total Class Peer Tutoring," *Remedial and Special Education* 28, no. 2 (2007): 95–107 <https://doi.org/10.1177/07419325070280020801>.

modeling as an instructional strategy for teaching life skills to children with mild to moderate intellectual disabilities.

1. Educational institutions should formally integrate video modeling techniques into the standard curriculum for students with intellectual disabilities. This integration should be systematic, ensuring that video modeling is used consistently across various subjects and life skills training programs. Schools should also consider developing a repository of video modeling resources that can be easily accessed by teachers and students.
2. It is recommended that ongoing professional development opportunities be provided for teachers and support staff to equip them with the skills necessary to create, implement, and evaluate video modeling interventions. Training should cover the technical aspects of video production, the principles of observational learning, and strategies for tailoring video content to meet the individual needs of students. Additionally, educators should be encouraged to collaborate and share best practices related to the use of video modeling in the classroom.
3. Given that video modeling relies on access to technology, it is important that schools and educational institutions invest in the necessary technological infrastructure. This includes providing access to video recording and editing equipment, as well as ensuring that students have the means to view video

-
- models in a way that is accessible to them. Schools should also consider investing in software and applications that facilitate the creation and dissemination of video modeling content.
4. Finally, it is essential that the implementation of video modeling be accompanied by ongoing monitoring and evaluation. Schools should establish systems for tracking students' progress in acquiring and retaining life skills through video modeling. Regular assessments should be conducted to evaluate the effectiveness of video modeling interventions, and the results should be used to make data-driven decisions about how to improve and refine these practices.
