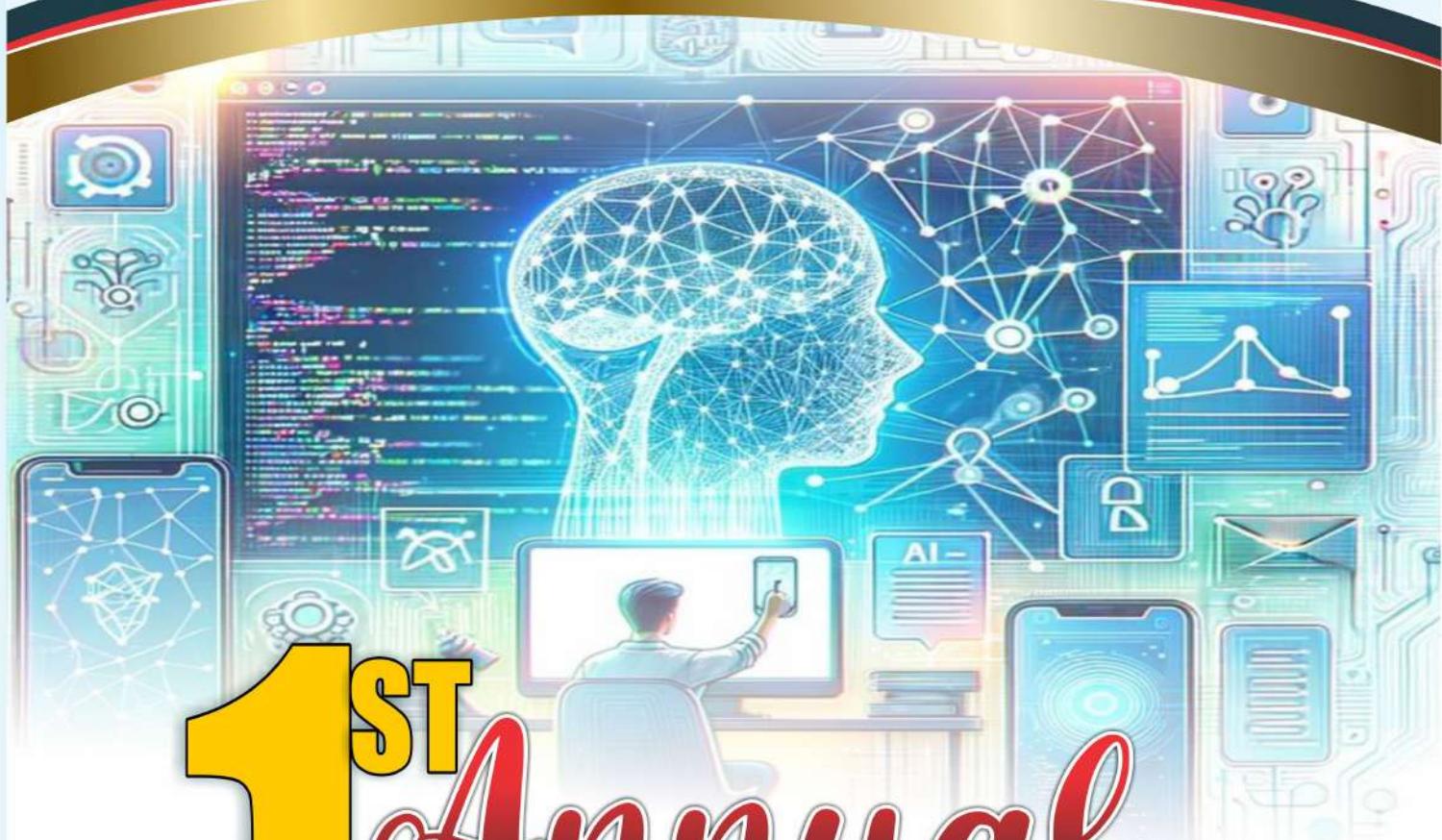




**ASSOCIATION OF SCIENCE EDUCATORS ANAMBRA (ASEA)**

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**SCIENCE EDUCATORS AND DIGITAL LITERACY  
IN THE 21ST CENTURY**



**1<sup>ST</sup>**  
*Annual*  
**CONFERENCE**  
**PROCEEDINGS 2025**

**Editor**  
**Prof. Josephine N. Okoli**

# ASSOCIATION OF SCIENCE EDUCATORS ANAMBRA (ASEA)

**THEME: SCIENCE EDUCATORS AND DIGITAL LITERACY IN THE 21<sup>ST</sup>  
CENTURY**

**1<sup>ST</sup> ANNUAL CONFERENCE PROCEEDINGS, 2025**

**10- 12<sup>th</sup> July, 2025**

*Editor*

**Prof. Josephine, N. Okoli**

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**Usan Peter**

Chemistry Department  
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Anambra State, Nigeria

## PROGRAMME OF EVENTS

- Opening Praying
- Chairman's Opening Remark
- Breaking of Kola nut
- Welcome Address by the acting President of the Association
- Keynote Presentation by Prof. Cecilia O. Ekwueme
- Lead Paper Presentation by Prof. Telima Adolphus
- About the Electronic Book / Unveiling of Book Chapter – E-Book launch
- Item 7
- Meritorious Award
- Paper Presentations

## **MERITORIOUS AWARD**

### **CITATION OF Dr SAMUEL ALFAYO BOH**



It is my pleasure and singular honour to be called upon to read a citation on one of the eminent Doctor that the family of Alfayo has ever produced.

People are not chosen for their comfort, they most often to prepare for a life of self sacrifice and even sufferings on behalf of other. And most often their calling is not for privilege but for service. Whichever prism you use in view him, Dr Samuel Alfayo Boh a class teacher of high repute, a man of integrity and fear of God, sacrifices and service for the betterment and advisement of humanity.

May, 18, 1969 marked the beginning of the steadily progressive son of Boh colored mother and the Shongomite father. This account of this childhood and youth in Gombe State shows the prince he had to pay for such a birth. It did not take long before he was revealed as a man of vision and mission as every step he took in both early life and now was clogged with success, and a wide breath of accomplishment.

Dr.Samuel Alfayo Boh spends is early life in Boh with his parent. He attended Boh primary school from 1976 to1984 exposed his qualities as a gifted child enable him to proceed to Government Science Secondary School Kaltungo 1984 to 1987,Teachers College Gombe 1988 to 1990 the exceptional this qualities made way for him to enlist to College of Education Azare 1993 where he bagged National Certificate in Education (NCE) while in Azare, he was elected parliamentary student union 1994 to 1995 session and thereafter in the year 1987, he proceeded to famous University of Maiduguri Borno State and had a Bachelor of Education and passed with flying colours in 2000. Diploma in World Evangelism Mission Training Institute in Borno State in 1999. In 2001, the indefatigable Samuel was drafted in to the National youth service scheme in Tsafe, Zamfara State his service witnessed a continued story of one success after another like the Nehemiah of the Holy Bible. As a man who fully understand what benefits education could bring his way when tapped. Dr Samuel did not hesitate to define where he was headed for in that direction. In 2004, he gain admission to University of Maiduguri, Borno States as an intelligent

student, he graduated in 2008 with Master of Education in Curriculum and Instruction (M.ED). Diploma and Certificate in computer 2009. In the year between 2013 to 2016 he bagged Masters in Guidance and Counseling in Theological Seminary College Kaltungo in Gombe State. Moreover, the influence this celebrated academia exerted on him equipped him to master the techniques of research, the canons of interpretation and reconstruction of academic research, the craft and skills involved and teacher – students relationship in 2010 he proceeded to one of the best University in Nigeria University of Nigeria Nsukka in Enugu State and come out with Doctor of philosophy (Ph.D) in Curriculum and Instruction.

A man with a formidable profile charismatic personality, Dr Samuel is indeed an achieve per excellence he has not only carved a niche for himself, but has also made name and reputation in Nigeria. He has always impacted positively in the lives of everyone he meets. He has also shown high sense of professionalism and dedication to the service of humanity. On several occasion Samuel has interrupted his travels to attend to civilian, accident victims and he has truly saved a lot of lives.

Dr. Samuel Alfayo Boh started his civil service career as a classroom teacher; he had a little starting with the noble teaching profession. In 1996 he took appointment with Boh primary school, Labeke primary school in 1997, Kulishin primary school 1999, Pivotal Teachers Training Programme Lapan in 1999. In 2000 He moved to Government Day Secondary School Boh. In 2000 Tutor Senator T.U. Wada Educational Emancipation Scheme. Presently, lecturer with Federal University Kashere, in the Department of Educational Foundations

Dr. Samuel is a versatile personality of note and a man of many parts. He is fondly referred to as sport, Author and a born teacher of good repute. In his romance with great academics, he has received more than twenty awards, member of many associations, he has presented more than thirty academic papers in both international and national journals, he has published Ninety journals, sixteen book chapters, he has written eight books, presently chairman board of governors Jim Collis Kufai, fellow members of more than seven associations, former permanent commissioner sports commission Gombe State, chairman and secretary of many association, He is happily married to Mrs. Abigail Samuel and blessed with many children.

Having described himself as an enterprising person who has excellence attached to his name, Dr Samuel Alfayo Boh evinces a friendly disposition towards his students. He is a strong advocate of treating students with understanding and affection, Dr. Samuel incontestably mentors, counsels, reprimands, sympathizes and assists his young and old alike. Some of his students describe him as a luminous teacher whose passion for academic scholarship is infectious and whose pedagogical principle skills and friendly disposition are so admirable and endearing that attendance at his lectures is always high and far outstrips most others.

Ladies and gentlemen, Dr. Samuel Alfayo Boh is a small figure on the physical appearance. It is my great honour and privilege to call on this academic repute, erudite, scholar, indefatigable and inspirational mentor, community lover, and motivator ardent love of Shongomite culture and humanist to graciously joint the chairman and other for the formal presentation of this fabulous awards to acknowledge to celebrate his hard word, disciplines, kindness, humanness and commendable role he is playing in the academic careers and character-building

## FOREWORD

It is with profound pride and optimism that I write this foreword to the maiden Book of Conference Proceedings of the Association of Science Educators Anambra State a timely and significant academic documentation that captures the robust engagements, research contributions, and transformative ideas presented at the 1st Annual Conference of the Association, scheduled for July 10, 2025, in Awka, Anambra State, Nigeria.

The conference, with the theme “Science Educators and Digital Literacy in the 21st Century,” could not have come at a more opportune moment. In an age where digital transformation is rapidly redefining education, economy, and society, the role of science educators in equipping learners with not only scientific knowledge but also digital competencies has become more critical than ever. The conference offered a strategic platform for scholars, researchers, policy makers, and practitioners to interrogate, share, and shape new pedagogical paradigms that incorporate digital literacy into the fabric of science education.

In his address of welcome, the Acting President of ASEA, Dr. Johnbosco O.C. Okekeokosisi, delivered a compelling call to action. He set the tone by acknowledging the historical importance of the event and the noble mission of ASEA to champion science education across Anambra State and beyond. His words reflected a clear vision of collective progress, innovation, and institutional synergy. Most notably, Dr. Okekeokosisi emphasized that digital literacy in science education is not merely about embracing technological tools but about empowering both educators and learners to critically engage, create, and transform scientific knowledge for societal advancement.

This compilation of conference proceedings is more than a record of presentations—it is a testimony to the enduring commitment of Nigerian science educators to adapt to global educational trends. With insightful keynote and lead paper presentations by eminent scholars such as Prof. Cecilia O. Ekwueme and Prof. Telima Adolphus, participants were exposed to a breadth of ideas, models, and classroom innovations. These contributions are now immortalized in this volume, accessible to researchers, policymakers, and education stakeholders worldwide. The articles by contributors are of quality standard and intimately related to the conference theme.

The proceedings are also a celebration of collective effort. Dr. Okekeokosisi rightly acknowledged the contributions of past leaders of STAN, the Executive Principal of Igwebuike Grammar School, the Local Organizing Committee, and institutional partners who ensured the success of this pioneering event. Their efforts reflect a shared belief in the transformative power of science education when driven by vision, collaboration, and strategic digital integration.

This book also symbolizes the maturity and forward-thinking disposition of ASEA. With its proceedings published online in the Association’s official website ([www.jisepublications.org](http://www.jisepublications.org)), ASEA is setting a benchmark for academic visibility, accessibility, and global relevance. The initiative aligns perfectly with the conference theme—leveraging digital platforms for knowledge dissemination.

As readers engage with the rich content within this publication, it is my hope that they find not only knowledge but also inspiration to further the cause of digital transformation in science education. May this volume serve as a resource, a reference, and a rallying point for continued innovation, research, and excellence in digital literacy, science teaching and learning.

**Prof. Marcellinus C. Anaekwe**  
**manaekwe@noun.edu.ng**  
**National Open University of Nigeria,**  
**Abuja.**

## PREFACE

Digital literacy in the 21st century is crucial for science educators to effectively teach and prepare students for a rapidly evolving scientific and technological world. Science educators must embrace digital tools and resources to enhance their teaching methods and foster students' scientific literacy, critical thinking and problem-solving skills. This includes leveraging online platforms, using educational technologies and digital content to create engaging and meaningful learning experiences.

In this conference proceedings efforts has been made towards promoting the use of digital tools in science education.

**Prof. Josephine N. Okoli**

Science Education Department

Nnamdi Azikiwe University, Awka,

Anambra State, Nigeriascience

**ADDRESS OF THE ACTING PRESIDENT OF ASSOCIATION OF SCIENCE EDUCATORS ANAMBRA (ASEA), DR. JOHN BOSCO O.C. OKEKEOKOSI, AT THE OPENING CEREMONY OF THE 1ST ANNUAL CONFERENCE HELD IN AWKA, ANAMBRA STATE, NIGERIA ON 10<sup>TH</sup> JULY, 2025**

**Theme: “Science Educators and Digital Literacy in the 21st Century”**

Distinguished Guests,

Mother of the Day, and Executive Provost of the Federal College of Education (Technical), Umunze, Prof. Tessy O. Okoli

Past and Immediate Past Chairmen of the Anambra State Chapter of the Science Teachers Association of Nigeria (STAN), Prof. C.V. Nnaka, Dr. Christiana U. Ezenduka Past and Immediate Past Secretary of the Anambra State Chapter of the Science Teachers Association of Nigeria (STAN), Dr. Chinwe B. Njelita, Mr. Kingsley N.C. Ezeokeke

The Executive Principal of Igwebuike Grammar School, Awka, Mrs. Amaka Ifebili

Our Esteemed Keynote and Lead Paper Presenters, Profs: Cecilia O. Ekwueme, Telima Adolphus

Meritorious Awardee, Dr. Samuel Alfayo Boh

Representatives of Educational Institutions, Pharm. Adauzoh C. Joe-Obasi

The Conference Planning Committee

The Local Organizing Committee (LOC),

My Fellow Science Educators,

Ladies and Gentlemen.

It is with deep humility and immense pleasure that I stand before you today as the Acting President of the Association of Science Educators Anambra (ASEA), to welcome you all to this historic gathering — the **1st Annual Conference** of our noble Association, taking place here in the vibrant capital city of Awka, Anambra State.

This moment marks a milestone in the life of our Association and in the educational landscape of our dear state. Today, we have gathered not just to deliberate on academic issues, but to collectively reflect on and shape the role of science educators in a rapidly changing digital world. The presence of each one of you here is a testament to your dedication to the advancement of science education in Nigeria, and in particular, in Anambra State.

Let me begin by extending heartfelt gratitude to our **Mother of the Day**, the erudite and distinguished **Executive Provost of the Federal College of Education (Technical), Umunze**, for honoring our invitation. Your presence is a great source of inspiration, and we are immensely grateful for your unwavering support towards science and technical education in the state. The Host and Board of Directors, Prof. Josephine N. Okoli, Prof. Isaac N. Nwankwo, Prof. M.C. Anaekwe

Chairman of the occasion Ass. Prof. Peter I.I. Ikoku

To the **Past Chairman and Immediate Past Chairman of Anambra State STAN**, we salute you. You laid the foundation for excellence and integrity in science education upon which ASEA continues to build. We are proud to carry forward the torch of progress you lit. Your legacies continue to motivate and guide our mission as science educators.

We also sincerely appreciate the **Executive Principal of Igwebuik Grammar School, Awka**, for the enormous and selfless support towards the successful hosting of this conference. Your generosity and logistical assistance have played a crucial role in bringing this vision to reality. We are proud to host this conference within your institution, and we thank you for embracing the ASEA family.

Special thanks also go to our **Keynote and Lead Paper Presenters**, whose scholarship and insight will surely enrich our understanding of the conference theme: *“Science Educators and Digital Literacy in the 21st Century.”* You are the thought leaders that will help us navigate this complex but exciting intersection between pedagogy and technology.

Meritorious Awardee, **Dr. Samuel Alfayo Boh**, whose contributions to teaching and learning in tertiary institutions lead to the foundation of our members.

The **representatives of educational institutions**, both public and private, we acknowledge your partnership and presence. Your contributions, ideas, and institutional support are essential in sustaining quality science education. Together, we can foster a generation of scientifically literate citizens equipped for the demands of the 21st century.

Let me also specially recognize the tireless efforts of the **Local Organizing Committee (LOC)**. You have worked round the clock, attending to logistics, communications, hospitality, and a host of behind-the-scenes responsibilities. This conference would not be possible without your selfless commitment. I say, “Well done!”

This conference has its theme **“Science Educators and Digital Literacy in the 21<sup>st</sup> Century”**. The theme is very apt considering the fact that we are in the digital age. Thus, the committee on conference looked inward to provide this conference theme for science educators to understand, educate, re-educate, write and deliberate on the effective use of digital tools – technologies in our present time for effective instructional delivery. Participants will be taken through hands-on and minds-on activities in various sessions and they will find the conference package very rewarding. I invite you to pay attention during keynote address to be presented by Prof. Cecilia O. Ekwueme, the Dean Faculty of Science Education, University of Calabar, Cross-River State, Nigeria. Your continuous attention is also needed during the lead paper presentation of Prof. Telima Adolphus of Rivers State University, PortHarcourt, Nigeria.

To all **participants** – educators, researchers, students, policy makers – thank you for making out time to be here. Your presence signifies hope for the future of science education. I urge you to make the most of this gathering by networking, exchanging ideas, and exploring new strategies to embed digital literacy in science classrooms and curricula.

As we delve into this conference theme, let us remember that digital literacy is not just about the use of devices or softwares. It is about empowering both teachers and learners to navigate, create, and critically evaluate digital content. It is about transforming science education into an interactive, engaging, and accessible experience that prepares our students for global competitiveness. We must rise to this responsibility with courage, collaboration and innovation.

As we officially declare this conference open, let us do so with a shared sense of purpose and vision. Let us reflect deeply, discuss intelligently and leave this gathering better equipped to build a technologically savvy and scientifically vibrant society.

Ladies and Gentlemen, it may interest us to note that this young growing association has an online Journal, Electronic Book (e-book) and Conference Proceedings. The E-Book and Conference Proceedings were hosted online at the association's website ([jisepublications.org](http://jisepublications.org)) for its visibility. It is obvious that this association has come to stay. To God be the glory.

Once again, I welcome you all to the 1st Annual Conference of the Association of Science Educators Anambra (ASEA). May our deliberations be fruitful, and may the bonds we forge here today grow stronger for the benefit of science education in our state and beyond.

Thank you, and God bless you all.

**Dr. Johnbosco O.C. Okekeokosisi**

Federal College of Education (Tech) Asaba,  
Delta State, Nigeria  
Acting President, ASEA  
10th July, 2025

# PAPER 18

## THE USE OF VIDEO ANALYSIS IN SPORTS IN THE 21<sup>ST</sup> CENTURY: ADVANTAGES AND DISADVANTAGES

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### Abstract

*This paper presents the usage of video analysis in sports in the 21<sup>st</sup> century and its perceived advantages and disadvantages. The study highlighted an overview of video analysis technology, how it functions, benefits, and its application and uses by different sports and other areas of life. It also highlighted some of the advantages and disadvantages of using video analysis in sports such as over reliance on technology, time consuming process, potential for misinterpretation of data among others. The paper made some useful conclusions as well as recommendations that will improve current sports technological innovations in Human Kinetics and Sports.*

**Keywords:** Video analysis, innovation, Sports

### Introduction

Modern society has experienced an increase in the use of digital technology in every aspect of our existence. Technology is all around us and sports is not left out. Sports is taking good advantages of these technology in areas such as data handling, software development for training documentation, enhancing athlete performance, fan engagement, and the overall game experience. These digital technologies include smart phones, computer system, cameras, stop watches, hawk-eye technology. Sports teams are increasingly using big data to analyze player performance, predict injuries, and gain a competitive edge. Tools like Cyclops and Hawkeye track player movement and ball trajectory (Uzor, Ujuagu and Uwa, 2024). Sports video analysis is the use of video to analyse the performance of players. It uses the latest technology to help players improve their skills and have an advantage over the opponent. We have different types of sports performance analysis where videos can be effective. This technology not only propels teams towards excellence but also demystifies the complexities of sports for enthusiasts and professionals alike (Madhukuara and Nayan, 2022).

Video analysis in the 21st century is a powerful tool for enhancing digital literacy among athletes and coaches. By providing visual feedback and data-driven insights, it helps improve performance, communication, and strategic decision-making. This technology allows for detailed analysis of gameplay, identification of strengths and weaknesses, and the development of tailored training programs, ultimately fostering a deeper understanding of the game. According to Catapult (2024), video analysis provides detailed insights that help athletes and coaches make informed decisions, enhancing training and game tactics. By enabling a granular analysis of matchplay, athlete movements, and tactical strategies, video analysis has changed the way coaches and athletes refine their craft. Video feedback is used in physical education classes to help students improve their techniques and understanding of sports-related concepts.

According to Ritchie (2021) video analysis is a technique used to analyze football matches and training sessions by breaking down the game into smaller parts. This can include individual performances, team tactics, and team constellations. It is used to help teams improve their performance by identifying areas of strength and weakness and developing strategies to address them, but also to analyze opponents and how to exploit their weaknesses, and at least it can be used for scouting new players.

### **Statement of the Problem**

The great educational challenge is related to achieving a true methodological implication for curricular development, thus breaking with the preconceived idea that Information and communication technologies (ICT) are an external element, especially in the field of Human Kinetics. It requires specific training that involves empowerment in order to take full advantage of the potential of ICT for the management of teaching, professional development and life-long learning (Suriya and Arumugam, 2020). Numerous technological applications regarding the promotion of physical activities and fitness are available and easily accessible for teaching Human kinetics and sports (Uzor and Ujuagu, 2024b). Based on that, the main purpose of the study is to investigate the usage of video analysis in sports in the 21<sup>st</sup> century and its perceived advantages and disadvantages.

### **Objectives of the Study**

The study seeks to ascertain;

1. use of video analysis in Human Kinetics and sports
2. upgrading of sports physical infrastructure and provision of additional facilities for teaching human kinetics which are grossly inadequate in most institutions
3. use for standard sport facilities and equipment which must confirm with international specification at various levels.
4. use and avail the technology support to enhance the student's knowledge in the class room education.
5. Human Kinetics needs much more implication in latest technology availability to enrich the class room teaching as well as field work.

### **An Overview of Video Analysis**

Video analysis works by recording sporting events (training sessions or matches) and then using software to examine the footage, often with the goal of improving individual or team performance. This involves detailed analysis of player movements, positioning, tactics, and decision-making. The software allows for features like slow motion playback, zooming, and tracking specific players or actions, providing coaches and athletes with visual feedback and insights.

1. **Recording:** Video analysis begins with recording the sporting event, often using multiple cameras to capture different angles and perspectives. Automated camera systems can track the ball and players, simplifying the recording process.
2. **Analysis:** Video analysis software is used to examine the recorded footage. This software often includes features like:
  - Slow-motion playback: Allows for detailed examination of movements and actions.
  - Zooming: Enables focus on specific players or areas of the field.

- Drawing tools: Allows coaches to draw on the screen to illustrate tactics or highlight areas for improvement.
- Tracking: Software can track specific players or objects (like the ball) to analyze their movements and patterns.
- Data overlay: Some software can overlay data (like speed, distance, or heart rate) onto the video for further analysis.
- Coaches and analysts use these tools to assess player performance, identify areas for improvement, and develop strategies.

3. **Feedback and Improvement:** The insights gained from video analysis are used to provide

targeted feedback to players.

- By seeing their actions, players can better understand their strengths and weaknesses and work on specific areas.
- Video analysis helps athletes visualize situations, understand the impact of their actions, and make more informed decisions in the future.
- This process can be applied to both individual players and the team as a whole.



**Picture of Video Analysis**

## Benefits of Video Analysis

Video analysis offers numerous benefits across various fields, primarily by providing objective feedback, enhancing skill development, and improving strategic understanding. It allows for detailed performance evaluation, facilitates injury prevention through technique correction, and aids in progress tracking for both individuals and teams. While video analysis is mostly used for professional teams, it has many benefits for amateurs as well. According to Veo (2022), these include the following thus;

- 1. Improves Communication:** About 65% of people are visual learners. Although the coach can lecture players about errors they are making in the game, some players may not be able to get it. On the other hand, showing a video of the same error can help them catch on quickly. This can help boost communication between coaches and athletes. Coaches can also utilize sports videos to highlight particular actions in an athlete's performance and use them as a guide to enhance training. Additionally, athletes can also view their own footage and performance. As an athlete, it can help you figure out parts of your technique that need improvement.
- 2. Offers Instant Feedback:** With Video Camera 3 you can live stream your training sessions and matches. If you're a coach, it helps you identify mistakes being made during the game. This allows you to come up with solutions instantly. You can either change formations or tell players areas where they can improve. As well you will share your greatest moments when it happens and when it matters.
- 3. Provides Objectivity:** Good coaching relies on objectivity. Video review footage can help you accentuate the positives and negatives of the game without bias. It can help you praise or correct your players based on concrete visual data. With unlimited storage on Veo Editor, you can also use video analysis in sports to create a database that accurately shows the progress your players have made. This can help improve morale.
- 4. Helps Power over Your Opponent:** It's not just your team that can be analyzed. Review footage can help you spy on the opposition and see how they play their game. Learning their game can help you build effective counters to their strategies. You can identify their strengths and come up with a game plan to reinforce your defense. Additionally, you can see their weaknesses and exploit them.
- 5. Improves Individual Performances:** Through review and comparison, sports analysis can help you as a player level up your game. You can use it to identify your weak points so that you can improve on them. You can also compare your skills with other players and see the positives you can take from them. Video reviews can also help you monitor your performance throughout the years.
- 6. Helps with Team Development:** In a team, each player has unique capabilities. As a coach, you can use video reviews to create your team's player profiles. It also helps you look for ways in which each player can contribute to the team so you can win your games. Your team will become more synchronized, creating a winning mentality.
- 7. Prevents Risk of Injury:** Poor body positioning and techniques often contribute to sports injuries. These injuries can be detrimental to your career. When you analyze sport videos, you can identify techniques that can cause pain and injury. This way, you can avoid these habits and learn the correct technique to avoid injury. What's more, video reviews can help you track your progress and recovery after an injury.

## 8. Benefits of Video Analysis in other Fields

- a. **Education:** Video analysis can be used to evaluate teaching methods, identify areas for improvement in lesson delivery, and create more engaging learning experiences.
- b. **Healthcare:** Video analysis aids in surgical training, rehabilitation, and injury prevention by allowing for detailed examination of movement patterns.
- c. **Research:** Video analysis is a valuable tool for researchers across various disciplines, enabling them to study behavior, movement, and interactions in detail.
- d. **Business and Security:** Video analytics can help businesses improve processes, enhance security, and gain insights into customer behavior.

### Application of Video Analysis in Different Sports

The application of video analysis across various sports showcases not just its versatility but also how cutting-edge technologies and methodologies, inspired by innovations such as Football tech, are redefining performance analysis for elite sports teams. According to Catapult (2022), the following sports uses Video Analysis in decision making during officiating of sports by both coaches and athletes.

### Applications and Uses of Video Analysis in Different Sports

The application of video analysis across various sports showcases not just its versatility but also how cutting-edge technologies and methodologies, inspired by innovations such as Football tech, are redefining performance analysis for elite sports teams (Oppel and George, 2025). Video analysis is widely used in various sports for enhancing gameplay, refereeing, and fan engagement. Examples include football, cricket, tennis, baseball, basketball, volleyball, American football, ice hockey, and rugby where video analysis aids in decision-making, strategy development, and performance evaluation (Catapult, 2024).

#### 1. Football (Soccer):

- **Refereeing:**

Video Assistant Referee (VAR) uses video analysis to help referees make accurate decisions on goals, penalties, red cards, and other crucial moments.

- **Tactical Analysis:**

Teams analyze game footage to identify opponent weaknesses, develop strategies, and improve their own performance.

- **Player Performance:**

Individual player actions can be tracked and analyzed to assess strengths and areas for improvement.

#### 2. Cricket:

- **Decision Review System (DRS):** Similar to VAR in football, DRS uses video to review umpire decisions, particularly regarding catches and lbw appeals.

- **Bowling Analysis:** Video analysis can assess a bowler's action, speed, and accuracy.

- **Batting Performance:** Video footage can be used to analyze a batsman's stance, shot selection, and footwork.

#### 3. Tennis:

- **Hawk-Eye:** This system uses video analysis to track ball trajectories, providing line calls and helping players challenge decisions.

- **Shot Selection:** Analyzing video footage can help players understand their shot patterns and make more strategic choices.
- **Serve Speed and Placement:** Video analysis can track serve speed, spin, and placement, providing valuable data for improvement.

4. **Basketball:** Basketball teams benefit from integrated video analysis by combining video footage with performance data to identify key areas for improvement. This approach mirrors the Five Steps to Success in Video Analysis, where each phase of the game is meticulously analyzed to optimize strategies and enhance player performance in real-time scenarios.
5. **Volleyball:** Volleyball utilizes video analysis to dissect serve techniques, attack strategies, and defensive setups. Insights from advanced video technology enable a comprehensive review of each rally, providing coaches and players with actionable feedback to refine their approach based on the analysis of successful plays and areas needing improvement.
6. **American Football:** The complex nature of American football with its intricate plays and strategies, makes integrated video analysis invaluable. Teams analyze footage to develop game plans, leveraging data-driven insights to anticipate opponents' moves and adapt strategies accordingly.
7. **Ice Hockey:** Ice hockey teams apply video analysis to evaluate game tactics, player positioning, and in-game decision-making. This sport benefits from the high-speed analysis capabilities of Pro Video, offering detailed insights into power plays, penalty kills, and goaltender performance, significantly influencing game preparation and strategy.
8. **Rugby:** In rugby the application of the five-step process to video analysis ensures a comprehensive evaluation of set pieces, phase play, and player contributions. This structured approach enables teams to dissect game footage systematically, enhancing tactical planning and player development based on detailed performance analysis.

## Advantages

1. **Improved Performance:** Video analysis provides athletes and coaches with immediate and accurate feedback on performance, allowing for the identification of areas needing improvement and the correction of technique or strategic errors.
2. **Injury Prevention:** By analyzing movement patterns and identifying potential injury risks, video analysis can help coaches implement preventative measures and targeted training programs, reducing the likelihood of injuries.
3. **Enhanced Coaching Strategies:** Video analysis allows coaches to better understand opponent tactics, scout players, and develop more effective game plans.
4. **Progress Tracking:** Video allows for the tracking of player progress over time, providing objective data to monitor improvements and adjust training accordingly.
5. **Personalized Training:** Video analysis can be used to create personalized training programs tailored to individual athlete needs and strengths.
6. **Objective Feedback:** Video provides visual feedback, which can be more easily understood by athletes, especially those who learn best through visual aids.
7. **Increased Athlete Commitment:** The ability to see their performance, both good and bad, can motivate athletes to commit more fully to training and improvement.

## Disadvantages

- 1. Over-reliance on Technology:** Over-reliance on technology can lead to a decrease in traditional coaching methods and a potential disconnect between coach and athlete.
- 2. High Cost can lead to Inaccessibility:** High-quality video analysis systems and software can be expensive, making them inaccessible to some teams and athletes.
- 3. Data can be Misinterpreted:** Interpreting video data can be complex and requires expertise. Incorrect interpretation can lead to misinformed decisions and hinder development.
- 4. Time consuming process:** As many coaches and analysts already know, it is a time-consuming process, not only for the coaches and analysts, but also for the young athletes. This can be challenging for the athletes that have other commitments, such as school or some extra-curricular activities.
- 5. Privacy Concerns:** The use of video footage raises privacy concerns, particularly regarding player data and footage sharing.
- 6. Potential for Negative Impact on Confidence:** While video can be used to highlight strengths, it can also be used to point out weaknesses, which can negatively impact an athlete's confidence if not handled carefully.

## Conclusion

Video analysis offers versatile applications, particularly in sports and training, enhancing individual and team performance. It allows for detailed examination of technique, tactics, and overall strategy, providing insights that can be used to improve performance and accelerate learning. Beyond sports, video analysis can be used in various fields such as education, security, and even marketing but should be extended to Human Kinetics in the classroom.

## Suggestions/Recommendations

1. Video analysis should be used in addition to traditional coaching methods to avoid over-reliance on technology.
2. It should be implemented in a way that does not negatively affect athlete's confidence and performance.
3. Coaches and athletes should define specific objectives for video analysis and focus on relevant aspects to reduce time consuming.
4. Coaches should avoid overwhelming players with too much information and focus on actionable insights.
5. The federal and state governments should accept their primary responsibility of funding the sports development section and through regular and adequate budgetary allocations to the sector in support of sports equipment and development programmes so that these current technologies should be accessible to both staff and students
6. Upgrading of sports physical infrastructures and provision of additional facilities, which are grossly inadequate in most institutions should be vigorously pursued by the Federal Government.
7. Human Kinetics and sports need much more implication in latest technology availability to enrich the class room teaching as well as field work.
8. Federal Government should provide adequate funds to ensure proper implementation and sustenance of the current technological innovations for effective teaching and learning at the university level.

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