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PGDMC SEMESTER – II
PAPER: PGDMC-108, ELECTRONIC MEDIA

CONTENTS

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INTRODUCTORY LETTER

Dear student,

In the 1st semester of "Electronic Media" PGDMC-108 paper we have studied the development of Radio & Television as a medium of communication, AIR codes. We also familiarized you with the organizational structure of All India Radio & Doordarshan, various formats of Radio & TV programmes. In this paper we shall acquaint you with the basics of writing news for Radio & TV, Structure and preparation of a Television Bulletin, and organizational structure of NSD in Doordarshan & AIR. We shall also discuss the basics of TV script writing, different types of scripts, camera shots, camera movements, compositions & transitions. We will also introduce you with the basics of radio sound i.e., how to mix, blend and reshape of radio sound. We shall also go through with the basic process of programme production & basics of programme editing.

With best wishes

Sunil Dutt
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SYLLABUS

UNIT-1

- Organisational structure of NSD in Doordarshan & AIR.
- Characteristics of Radio & TV.
- Structure and preparation of a Television Bulletin (gathering, condensing, compiling and presenting TV news)
- Basics principles of writing news for Radio & TV.
- News packages.

UNIT-2

- Basics of TV script, Writing, Different types of scripts (Narrative Style, split page, camera script).
- Above & below the line function in TV production.

UNIT-3

- Basic camera shots, camera movements, compositions & transitions.
- Introduction to radio sound: mixing blending & reshaping

UNIT-4

- Basics of programme editing: Linear and Non-Linear Editing.
- Basic process of programme production: pre-production, production, post-production

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Lesson-1

CHARACTERISTICS OF RADIO & TV AND STRUCTURE OF NSD IN DD & AIR

Structure

1.0 Objectives

After going through this lesson you will be able to:

- Understand the characteristics of Radio and TV as medium of Mass Communication
- Identify the advantages and disadvantages of Radio and TV as medium of Mass Communication
- Understand the structure and functioning of News Service Division of All India Radio and Doordarshan.

1.1 Introduction

Broadcasting is the practice of creating video and audio programmes and disseminating them to the mass audience with the help of Radio, Television and New Media. Ever since the

invention of Radio and TV, the growth and evolution of both the media into a massive network of mass communication is unbelievable. Long before the emergence of Internet and a global village, television and Radio did manage to bring the world closer. Both Radio and Television have played pertinent role in the growth and development of the nation. The informative, educative and entertaining programmes on radio and television have improved the society. Several programmes on social awareness have managed to garner attention of the people. The different genres of programmes on television provide viewers the opportunity to choose as per their will or need. Both the media have also been used as a tool for propaganda by various political parties and leaders at several instances. Radio and Television have proved extremely useful in disseminating information to illiterate people who cannot read newspapers and also for those who are visually impaired.

1.2 Characteristics of Radio

a. Creates Pictures

Even though Radio is a blind medium, it still has the potential to trigger imagination. As soon as the listener hears the voice through the microphone, the listener begins to visualise what he hears. This leads to vivid creation by the mind's eye. The pictures created in the mind depend upon the narration. Therefore, even though radio is only an audio medium, it manages to stimulate visuals in the minds of the listeners. It also provides liberty to the listener. With the help of appropriate music and sound effects, the listener is able to imagine the scene. It might leave room for distortions as the imagination is subjective to the listener. However, the radio presenter attempts to select words with utmost care so that they create appropriate pictures in the minds of the listeners. The objective behind doing so is that the subject understands the content and context and motivates easy recall.

b. Wide Reach

It would not be an exaggeration if we say that Radio has the potential to speak to millions. It is a mass media tool which has wide reach. As a broadcasting tool, radio aims at reaching out to every home, village, city and country within the range of its transmission. It is a challenge for the medium to strike a balance between Audience share and Audience reach. Audience share is the amount of time spent listening to a particular station which can also be expressed as a percentage of the total radio listening in a particular area. Audience reach on the other hand is the number of people who actually listen to the programs broadcast from the station for a period of a day or a week and it can be expressed as a percentage of the total population who could listen. Audience share and reach are equally important to access the position of the radio station. The idea behind mass media is to focus on reach and radio surely delivers the objective.

c. Personal

Unlike Television, Radio can be labelled as a personal medium as it is directly accessed by the listener. Radio emerges out as a one to one medium which establishes immediate personal contact with the listener. It appears that the medium has the potential to speak inside the heads of the listeners.

d. Flexible

The medium is flexible and immediate. It is considered one of the best options in broadcasting "live" situation. Radio accelerates the dissemination of information. Radio

reaches out to all the receivers simultaneously and has the capacity to deliver information instantaneously.

e. Economical

In comparison to other media, the capital cost and running expenses are small. Setting up a radio station has not been seen as a problem by the owners. Obtaining the transmission frequency is a problem. Radio stations have multiple revenue sources like advertisements, public license, government grants, private investment and public subscription to list a few. It can be understood that cost per listener hour is low. The medium is ideal for non-professionals. Radio is also cheap for the listeners. The radio sets are mass produced at low cost which makes them more affordable.

f. Selective

Radio can also be labelled as autocratic as the medium is highly selective and the selection process takes place in the studio and the listener is presented with a single thread of material. It is therefore a linear medium.

g. Lacks Space

The selection and shaping of the spoken material has to be concise and to the point. Detailed coverage in a radio programme is not possible unlike newspapers. In a newspaper, a big story is provided bigger headline and more columns, even pictures are used to support the story. The big story on radio is accompanied with a voice report and interview. The radio producer is often denied the liberty to maneuver the stories, emphasising on one more than the other. This creates a feeling that all stories are equally importance. Even though it makes the medium boring and mundane, it also helps in restoring objectivity and balance. Leaving the listener to decide which news item is more important to him.

1.2.1. Advantages of Radio

a. Radio has the potential to reach out to all irrespective of their educational qualifications. The illiterates, literates as well the highly educated listeners can all benefit from the information disseminated by the medium.

b. Radio is an affordable medium, both for the broadcasters as well as for the listeners. Radio sets are economical to buy, easy to use and maintain. Once the radio sets/ transistors are purchased, no cost is involved in receiving messages.

c. The sound effects, voice modulation and narrative style makes the process of listening enjoyable. It even helps in breaking the monotony.

d. Radio has the potential to deliver messages instantaneously.

e. Radio does not always demand complete attention. The listeners can listen to the radio while doing other tasks for example, driving or washing clothes or farmers can listen to farm programmes while working in the fields.

f. It does not require power line for operation therefore it is very useful in rural locations where power supply is a regular problem. The remotest of villages without power supply can enjoy programmes on radio.

g. radio works well as a medium of education. The dramatically illustrated events from the history, chronological narration of political situation can be discussed.

Radio can effectively reach out to meet the formal and informal learning needs of people who want to learn and grow.

h. Radio is a creative medium. It provides opportunity for innovation and experiment.

i. It contributes to self-knowledge and awareness. It also guides social behaviour, sets standards and offers role models to identify with.

j. It enables the listeners to exercise choice, to make decisions through unbiased dissemination of news and information.

k. It also works as a catalyst of change. It accelerates the process of information and highlights the key issues which require attention.

l. It motivates people towards mutual cooperation and collectivism, hence, establishing common consciousness.

1.2.2 Disadvantages of Radio

a. Radio is an audio medium and excludes visuals therefore; radio merely suggests and not demonstrates.

b. spoken messages are often left to listeners' interpretation which totally depends upon their imagination, experience, pre conceived notions therefore, the possibility of distortions cannot be denied. Comprehension of the message depends on the characteristics of the listeners.

c. Communication is time bound. Receivers cannot put off listening parts of message for subsequent listening at their convenience.

d. Radio can suffer from interference. Transmissions can suffer from the intrusion of other stations. Transmission can face technical distortions. Reception in a moving vehicle can also face problems because of poor signal strength.

e. The transient nature of radio limits the listener to not only hearing the programme at the time of its broadcast but also understand it then. Therefore, it is important for the programme producer to strive for the most logical, easy way to present the ideas.

Activity: Explain any two characteristics of Radio

1.3 Characteristics of Television

a. Audio Visual Medium

Unlike radio, which is only an audio medium, Television is an audio visual medium. The content includes sound and visuals. This quality makes it more impactful and it leaves the viewers with clear message. The medium has the potential to create an emotional connection with the viewers. Visuals are self-explanatory and sound enhances the impact. For example, listening to cricket commentary on radio is less interesting than watching cricket on television. The viewers are able to simultaneously live the moment. 'Seeing is believing' and

this audio visual characteristic makes the experience of watching an event on TV more memorable and realistic.

b. Domestic Medium

Television brings direct telecast of events to our homes and therefore can be considered as a domestic medium. It reduces the effort of going out to a cinema hall or a cricket stadium to watch a film or a match. It provides information and entertainment directly to our homes which can be enjoyed together by entire family. Also the live broadcast also helps us witness an event as it is happening from across the globe. For example, the launch of a satellite from NASA can be viewed live on our television sets. The 'direct you' appeal used on television connects immediately with the viewers. The medium is an intimate or personal one as it remains in close proximity with the viewers.

c. Live Medium

Television is a live medium which means that unlike a newspaper, it has the potential of direct transmission from the place of event of consequence. It can be said that television possesses more immediacy than newspaper or magazine. For example, live coverage of a bomb blast in XYZ place is telecast on our television sets. Television is extremely comfortable in broadcasting 'hot' news. 'Hot' news means events that happens suddenly, about which the journalists are not informed about in advance, for example a terrorist attack, demise of a celebrity, floods, earthquakes. Television connects the viewers immediately with the event.

d. Mass Medium

A segment of our society is still illiterate and cannot benefit from newspapers. Such population is comfortably informed, entertained and educated by television. Therefore, television is an ideal medium to disseminate information to large population. Television has a wide output and range and can be considered a true mass medium.

e. Transitory Medium

Due to the large output and lack of performances, television programmes cannot be easily recorded and watched later. Newspapers if not read in the morning, can be read in the evening. However, digitisation of television has reduced this problem in the recent past; however, it is practically impossible to record every programme on Television. Television is therefore, identified as a transitory medium.

f. Expensive Medium

Setting up a television studio requires enormous capital. Also a television set is expensive too. Therefore, the cost incurred in setting a studio makes it an expensive medium. It is not just the cost of the machinery but also the expertise required to run a station that involves money. A television programme cannot be made easily. It also requires money. The pre-production, production and post-production process involves high costs.

1.3.1. Advantages of Television

a. Television is a great source of information. The medium informs, educates, entertains, motivates, and mobilizes the masses. The variety of programmes on television also provides options to the viewers. One can select what to watch. The viewer can choose from a wide range, from history to politics to travel to entertainment and many more.

b. Television is a great source of entertainment and has the potential to help the viewers relate to the programmes. It also helps the viewers to establish personal identity with what is being show.

c. Television also helps the viewers in day to day life. For example, weather forecast informs and prepares the viewer for the day or advertisements inform about various products, goods and services available in the market for the consumers.

d. Television is also a pertinent source of formal and informal education. Programmes based on general awareness can help the students improve their performances in school.

e. Sometimes watching a programme on television can be more powerful than reading it in the newspaper or online or listening it on radio. Television intensifies the information.

f. Another advantage with television is the size of screen. In comparison to a phone or a tablet or even a laptop, the size of the television screen is bigger which makes the experience of playing games or watching a movie better.

g. It is also a very social mass media vehicle as it makes room for a number of people watching the programme together.

h. It is generally a tight controlled and regulated medium hence; it is safer than the internet. Television provides safe viewing for children and parents.

i. With the help of improved technology, it has also become easier to record programmes.

j. Television also provides live transmission of events.

1.3.2 Disadvantages of Television

a. Television is an expensive medium. It is expensive to purchase the set and also maintaining it is also costly.

b. Television has a drug like effect on its viewers and can make them lazy and unproductive.

c. Television can also influence the people towards wrong things. Overindulgence in the medium can be harmful.

d. Advertising is the primary source of income for every media vehicle. Unfortunately, commercials on television can be very disruptive.

e. Television is relatively less flexible than the internet. Not all programmes can be paused or recorded for later viewing.

Activity: List 4 advantages and disadvantages of Television as a medium of mass communication.

1.4 Structure of News Wing, Doordarshan

The Director General (DG) of Doordarshan supervises guides, governs and controls the entire functioning ofDoordarshan.The News Wing of Doordarshan is responsible for news gathering,

news selection, news processing and news evaluation & presentation. The administrative part for all the mentioned functions is looked after by the Deputy Director General (News and Current Affairs) who reports to the DG.DDG News Wing, is assisted by Chief Editor News, Chief Producer News and News Editor. The Role of Deputy Director General (Development) is to ensure proper and sequence wise development of the programme and is supported by Director, Audience Research, Controller of Programme (Development) and Deputy Controller of Programme.

The Additional Director is responsible for New and Current Affairs programme policy, programme coordination, planning, public relations. His rank is equivalent to that of Joint Secretary, Government of India.

1.5 DD News

DD News is the News Channel of India's Public Service Broadcaster and is responsible for disseminating balanced, fair and accurate news. On 3 November 2003, DD Metro was converted into a 24 hours news channel and renamed as DD News. It has a 49% reach by population and 25% geographical reach. The channel produces news content in 4 languages; English, Hindi, Urdu and Sanskrit which includes telecast of more than 30 news bulletins. The 14 Regional News Units (RNU) produce four regional shows in a day. Three sports bulletins, one business show, daily current affairs programme, special shows on health, youth, cinema, art & culture, flagship schemes, communal harmony, employment opportunities, international events, market development are also produced by the channel.

The News Wing of DD News also produces news content for DD National, DD India and DD Urdu. It produces 5 bulletins in either Hindi or English of 15 minutes each daily for DD National. The news wing recently introduced 10 LIVE bulletins and news scrolling for DD Urdu. The 29 functional Regional News Untis/Bureaus broadcasts over 100 news bulletins in 22 languages / dialects. Three new RNUs at Panaji, Shillong and Leh were operationalized between 2011 and 2013. The RNUs also cater to DD News in Reporting, Visual feeds and Special programming.

DD News also upload headlines, videos and special programmes on their official YouTube channel, youtube.com/DDNewsOfficial. This helps in reaching out to the netizens. The channel is also active on Twitter (@DDNewsLive) and actively tweets news and updates round the clock.

Activity: Explain the structure of News wing, Doordarshan.

1.6 All India Radio

All India Radio broadcasts 647 bulletins daily for around 56 hours in 90 languages/dialects in the Home, Regional and External Services. The News Services Division (NSD) of AIR is responsible for disseminating information to Indian and foreign listeners. From 27 news bulletins in 1939-40, AIR has a long way. Out of 647, 178 bulletins are broadcast daily from Delhi in 33 languages. 469 daily news bulletins in 75 languages are aired by 45 Regional News Units. This includes 314 headline bulletins on FM 'Rainbow' and from 40 AIR Stations. NSD also puts on number of news-based programmes on topical subjects from Delhi and RNUs.

1.6.1 History, Growth and Development

The Indian Broadcasting Company (IBC) aired the first news bulletin in the country on July 23, 1927 from Bombay and another bulletin in Bengali was broadcast from Calcutta a month later. The Bombay station broadcast two bulletins in English and Hindustani and Calcutta station continued to broadcast a Bengali bulletin until 1935. In 1930, Indian Broadcasting Company came under the direct control of the government of India and was then named the Indian State Broadcasting Service. The service was renamed All India Radio on June 8, 1936.

The first news bulletin from Delhi station was aired on January 19, 1936. Along with news bulletins in English and Hindustani, the station started airing talks on current affairs in both the languages. On August 1,1937, the Central News Organization was established and Mr. Charles Barnes was appointed as the first News Editor in September. He went on to become the first Director of News. During the World War II, it became necessary to develop the organization and therefore, the Monitoring Service was set up in 1939 with the primary objective to monitor foreign broadcasts. The External Broadcast Unit was set up under the Director of News in 1943. The Central News Organization established in 1945 was responsible for handling news bulletins in various Indian languages and also in the External Services. Post-independence, impetus was given to national and regional news bulletins and news broadcasts improved in quality and quantity.

The Delhi station of the News Services Division, carries out 178 English and Hindi news bulletins along with 33 bulletins in other languages for a duration of 22 hours and 17 minutes. This includes 56 bulletins in external service in 22 languages. Every day, 21 Hindi news bulletins are transmitted for duration of 2 hours 30 minutes and 26 news bulletins are broadcast in English for a duration of 3 hours and 5 minutes. These include sports news bulletins one each in Hindi and English. 48 news bulletins in various regional languages for 8 hours and 05 minutes are broadcast daily. Language bulletins are the primary source of national, international and regional news, especially for the masses in towns and villages. The evening bulletins include a commentary on topical subject. These bulletins are in Dogri, Kashmiri and Urdu.

In the early 50s, regional news bulletins were introduced and initial news bulletins were broadcast from Lucknow and Nagpur stations in April 1953. In the subsequent years, the Regional News Units were set up in Bombay, Madras and Calcutta. Currently, there are 45 Regional News Units functioning in different parts of the country.33 hours and 10 minutes of regular broadcast of 469 news bulletins in 75 regional languages or dialects started. This also included 290 headlines on FM and other frequencies from 39 stations.

The external services were delinked from the News Service Division on September 15 1948 but the responsibility of compiling the external news bulletins is still with the News Service Division. Currently, 66 news bulletins are broadcast in 26 languages for a total duration of 9 hours and 13 minutes. This includes both Indian and foreign languages. The Delhi station broadcasts 56 of these bulletins and the remaining are put out by various RNUs - Mumbai (01), Kolkata (03), Hyderabad (01) and Chennai (2), Dharwad (11), Ahmedabad (2).

FM 'Rainbow' carries out news headlines for the News Service Division since May 28, 1995. The Delhi station broadcasts twenty-four news headline bulletins on FM 'Rainbow'. Each headline is approximately for one minute. Currently, 40 All India Radio stations are airing FM headlines.

The news and entertainment channel was launched on September 1, 2001. The channel provides a combination of information and entertainment. One third of the total content is dedicated to news and current affairs. The channel broadcasts news on the hour, a composite news programme 'Dopahar Samachar' in Hindi & Midday news in English. The channel also airs specialized programmes like 'Market Mantra' (Business Magazine) and 'Sports Scan'. Other news-based programmes like 'Vaad Samvaad' and Countrywide (interviews with prominent personalities) are also broadcast from FM gold. 'Aaj Savere', 'Parikrama', 'public speak' and 'world news' have been added in the list of programmes broadcast on FM Gold channel.

News based programmes started in February 1936. The current topics based programmes were initially broadcast in English and talks in Hindustani were added later in the year. On 26th October, 1962, 'Topic for Today' and 'Focus' were introduced. In 1967, the programmes were renamed 'spotlight' and 'current affairs' respectively. 'Current Affairs' deal with topical issues in various subjects. Specialists and experts from the area express the viewpoint. It is half-an-hour programme in English and is broadcast from Delhi at 9:30 pm on Fridays. The corresponding Hindi programme 'Charcha ka Vishai Hai' is aired from 9:30 pm on Wednesdays. Delhi station also broadcasts other news based programmes like 'Samayiki' and 'Spotight' and Commentaries on current topics in Urdu, Kashmiri and Dogri.

On February 14, 1961daily and weekly reviews of the parliamentary proceedings were introduced. The daily review 'Today in Parliament' in English and 'Sansad Sameeksha' in Hindi started in two parts. One was on the proceedings in the Lok Sabha and the other covered the Rajya Sabha. The weekly review 'This week in Parliament' and 'Is Saptah Sansad Main' summarizes the key highlights of the parliamentary proceedings during the week.

In 1971-72, 'weekly reviews' of the proceedings of the State Legislatures while in session was also introduced in the respective languages of the states. A review of the 'Proceedings of the Delhi Assembly' was started from December 14, 1993.

On December 10, 1955, radio newsreel in English and Samachar Darshan in Hindi was started. Newsreel in English is broadcast on Monday, Tuesday, Thursday and Saturday whereas, Samachar Darshan is broadcast on Wednesday, Friday and Sunday. Few Regional News Units also air regional newsreels in their respective languages.

On February 25, 1998, AIR's News-on-Phone (NOP) service was started from the Delhi station. This service allows the listener to access news highlights in Hindi and English anywhere in the world on phone by dialing specified numbers. The News on Phone service in Tamil from Chennai, in Telugu from Hyderabad, in Marathi from Mumbai and in Hindi from Patna were introduced later. In 2006, the service has also been started from the Regional News Units at Allahabad, Thiruvananthapuram, Bangalore and Jaipur. Imphal and Lucknow also introduced the service in 2007. Currently, NOP services are available from 14 AIR stations including Delhi.

1.6.2 Sourcing News

AIR has 90 regular correspondents in India and abroad. The bulk of AIR news comes from the correspondents in India and at Colombo, Dhaka, Dubai, Kathmandu and Kabul. AIR also has over 500 part-time correspondents(PTC) based at nearly all district headquarters. The PTCs are also expected to meet the requirements of Doordarshan News also.

News Service Division subscribes to the news wire agencies, UNI and PTI along with their corresponding Hindi services- Univarta and Bhasha. The Monitoring Units (English and Hindi) which are attached to the General Newsroom and the Central Monitoring Services. These Units are responsible for monitoring bulletins of the major broadcasting organizations of the world. AIR has initiated a Radio News Exchange Programme with the members of the Asia Pacific Broadcasting Union to broaden the news coverage. NSD also has an Information Technology Unit in Delhi which takes care of the IT requirements of the division. The IT unit has set up an Internal Website to cater to the news requirements of the Regional News Units and others.

1.7 News Policy for Broadcast Media

In 1982, the advisory committee on official media attached to the ministry of information and broadcasting recommended the following guidelines:

1. AIR and Doordarshan are accountable to the community through Parliament. As national broadcast media, they possess special responsibility to transmit news with a view to informing, educating and enlightening people.
2. AIR and Doordarshan must be catalytic agents in linking the broadcast media with channels of inter personal communication within society.
3. The broadcast media have a special responsibility to give facts taking into account the serious consequences of such events to the community. While caution is imperative, any withholding of factual information will be counter-productive.
4. Current affairs programmes must be effective and should help in resolving communal tensions. The effective use of talks, interviews, spotlights can be effective in reducing tension.

1.8 Principles Guiding News Policy

1. The broadcaster must have a clear understanding of the difference between news and views. News reporting must be factual, objective and balanced and there cannot be editorializing in news broadcasting.
2. News story must be judged strictly on the basis of its news value.
3. Broadcasters must maintain high professional standards in selecting news.
4. The broadcasters must provide whenever necessary, a background to the events and happenings.
5. News must meet the quality standards of accuracy and responsibility.
6. Broadcasters must develop their own sources for the verification of events.
7. A special function of broadcasting should be the coverage of development, its significance, achievements and problems. Development news must cover wide range of activities and must not confine to statements and plans but also their significance.

Activity: Explain how AIR receives the news.

1.9 Structure of News Service Division (NSD), All India Radio

The NSD of All India Radio (AIR) provides news and views to listeners across India and around the globe as well. 647 bulletins are broadcast daily in 90 languages/ dialects by AIR in its Home, Regional and External Services. Out of these 647 bulletins, 178 are broadcasted from Delhi alone whereas rest are broadcasted from 45 Regional News Units (RNUs) of AIR.

The Director General (DG) who is one of the senior most officers of the Indian Information Service, heads the News Service Division. A team of Additional Director Generals (News, Directors (News) and Joint Directors(News) assist the DG.

The operational wings of NSD is situated in Delhi and has a General News Room, Hindi News Room, Reporting Unit, Talk Units (English and Hindi), Newsreel Unit, News Format Cell, Indian Language Units, Monitoring Unit, Reference Unit, IT Unit and Administrative Wing. The Regional News Units in various Indian states are headed by a Joint Director or a News Editor or an Assistant News Editor assisted by Correspondents, Reporters and Newsreaders-cum-translators.

Activity: Explain the set-up of the News Service Division**.**

Self-Check Questions

Write your answers in the space provided below:

Check your answers against those given at the end of the lesson.

1. List 5 disadvantages of Television as a medium of mass communication.

_____

_____

2. Mention the sources of news for All India Radio.

_____

_____

1.10 Summary

The News Service Division of AIR aims at disseminating news and information to the Indian and foreign listeners. The operational wing is situated in Delhi which has a General News Room, Hindi News Room, Reporting, Talks and Newsreel units. The working of the division is supervised by the administrative wing. The Director General heads the NSD. On the other hand, the Regional News Units in various Indian states are headed by a Joint Director or a News Editor or an Assistant News Editor assisted by Correspondents, Reporters and Newsreaders-cum-translators.

1.11 Glossary

AIR – It is the abbreviation for All India Radio. It is the premier Public Service Broadcaster of India. Its headquarters is in New Delhi. All India Radio aims at serving the nation through disseminating information, imparting education and entertaining the masses since its inception.

DD-DD News is the News Channel of India's Public Service Broadcaster and is responsible for disseminating balanced, fair and accurate news.

NSD-The News Services Division (NSD) of AIR is responsible for disseminating information to Indian and foreign listeners.

RNU-The Regional News Units are responsible for producing and transmitting regional news and programmes.

1.12 Further Readings

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1.13 Model Questions

- Explain the structure and functions of the News Service Division of All India Radio.
- List the key characteristics of Radio and Television and explain the advantages and disadvantages of Radio and Television as a medium of mass communication.
- Explain in detail the structure and functioning of News Wing of Doordarshan.

Answers to Self-Check Questions

1. Disadvantages of Television:
   a. Expensive
   b. Addictive
   c. Over indulgence can be harmful
   d. Less flexible
   e. Commercials can be distracting
2. Sources of News for All India Radio:
   a. Correspondents
   b. Agencies/wire services
   c. Reporters
   d. Monitoring Services
   e. Press Releases/Conferences
   f. Internet

Lesson-2

PRINCIPLES OF NEWS WRITING AND PREPARATION OF TELEVISION BULLETIN

Structure

2.0 Objectives:

After going through this lesson you will be able to:

- Understand the structure ofa television news bulletin.
- Prepare a television news bulletin
- Understand basic principles of writing news for radio and TV
- To understand the presentation techniques of radio news bulletin.
- To understand how to prepare a news package

2.1 Introduction

Broadcast journalism is the field of news that transmits or disseminates information via electrical methods. Radio Broadcast initiated the broadcast journalism and Television followed. News on radio and TV both maintain balance and objectivity. The duration of news on radio and TV is one minute. Radio and TV continue to serve broadcast journalism despite the tremendous growth of technology and advent of digital platform. Television is considered as one of the most significant inventions of the 20th century. It is one of the most powerful tools of mass communication. The audio-visual medium disseminates information to large number of population simultaneously. Long before the emergence of Internet and a global village, television did manage to bring the world closer. Television has played pertinent role in the growth and development of the nation. The informative, educative and entertaining programmes on television have improved the society. Several programmes on social awareness have managed to garner attention of the people. The different genres of programmes on television provide viewers the opportunity to choose as per their will or need. The medium is efficient, easy to access, interesting and time saving. The popularity of television has only increased. Changing technology has also improved television viewing.

2.2 Television Broadcasting

Television broadcasting is the transmission of visual images, generally with accompanying sound, in the form of electromagnetic waves that when received can be reconverted into visual images. On January 23, 1926, John Logie Baird of Scotland gave the world's first public demonstration of a mechanical television apparatus to the members of the Royal Institution at his laboratory. These were images of living human faces, not outlines with complete tonal gradations of light and shade. On April 7, 1927 Bell Telephone Labs and AT&T give a USA public mechanical television demonstration over both wire and radio circuits. Pictures and sound were sent by wire from Washington D.C., to New York City. However, it took further eight years for the beginning of practically feasible television broadcasting. A newscast director is in charge of television show. Technical director, graphic operators, audio technicians, camera operators, video editors, input and output editors, anchors together form the team that works for Television broadcast.

2.3 Difference between Newspaper and Television

Newspaper and television were both invented for providing information to people, entertaining and educating them. Newspaper belongs to the print media production and television is a broadcast media tool. If television has lots of channels, newspapers too have many segments. However, the two are quite different. The first noticeable difference between them is in information viewing. Newspapers have words, sentences, columns whereas Television has visuals and audio. Television is dynamic and instant whereas newspaper can be read at any leisure time. Breaking stories are for television and not for newspapers. Television is great for stories as visual aid is possible. Newspapers on the other hand are best for explaining complex news stories. Writing style for the two is also different. Television uses narrative and storytelling style which is also personalized but newspapers use chronological and inverted pyramid style. Television news uses vivid imagination as there is enough scope. However, in newspaper, the scope for imagination and creative play is limited in newspapers. Television provides instant news and is faster than newspapers.

2.4 Structure and Preparation of a Television Bulletin

2.4.1 News Gathering

News is any event that generates consequence. News is any event that is interesting, has an impact, unusual, new & extraordinary, presents conflict and is about famous personalities. Anything odd, shift from the regular which has the potential to generate consequence or opinion can be called news. News is something new, peculiar, and extraordinary and can motivate people towards a cause.

The process of collecting news from authentic sources is called news gathering. News gathering is the first step in news production. It is pertinent to find out answers to 6 key questions which include 5 Ws and 1H. While collecting facts on a story, it is important to follow these steps:

a. Research- It is important for the journalist to collect all the necessary information about the event before going into the field to record or shoot the material for broadcast.

b. Fact Checking- It is important to cross check all the facts about the story. Fact checking must be done before the story is aired.

c. Accuracy- The aim must be to broadcast accurate facts

d. Balance- The primary function of news is to present an unbiased and objective story. Therefore, it is mandatory to balance the story which means that it is important to collect all sides of the story. The report must include the bytes of all the stakeholders of the news.

The primary job of a journalist is to tell the story in the most objective manner but for broadcast journalism the art of storytelling cannot be compromised. Therefore, each news story must have the following elements:

a. Strong Character (person or personalization)
b. Plotline (it builds viewer interest and then hit them with the story)
c. Surprise (it is important to hold back key facts and reveal them at a point where the viewer's interest is maximum)
d. Conflict and Resolution (the news story must be a combination of emotion and dram with facts)

All these 4 elements are put together and compiled with a beginning, middle and an end.

2.4.1.a Formats for TV Broadcast

Stories for broadcast journalism can be shared in the following formats:

a. **Focus:** Focus is the angle of the story. While using this format, the journalist selects the focus point or the key idea of the story. Not every idea is news worthy. It is important for an idea to fulfil the following criterion to qualify as a news story:
    1. The idea must be strong enough to catch people's attention.
    2. The idea must be relevant to the people (health/income/employment/safety)
    3. The idea must arouse feelings in the viewer (sad/happy/angry/satisfied). It is important to note that the selfish side wins most of the times.

In case, there are no obvious sides to the story, it is important to follow these steps:

i. **Research:** Research helps in giving credentials to the story making it fit the definition of news. It also give reasons to do a story. If the research proves that the idea has a chance, you move to the next step.

ii. **Focus**: Focus helps the journalist limit the elements of the story. Focus helps in planning the news story. Focus elements have the following common elements:

- Each is a simple declarative statement
- Each contains cause and effect
- Each is based on research
- Each contains a reference to people
- Each has an emotional as well as factual side
- Each defines what should be in and what should be out
- Each has a subject, verb and object

b. **Enterprising Stories:** There are obvious along with not so obvious stories. The journalist must pick up enterprising stories. Enterprising stories include; breaking news, any story on policy implementation and press conferences. It is important to develop enterprising stories which develop from the community. The journalist must possess the following attributes to develop enterprising stories:

- Listen to what the people are talking about in public spaces
- Always be on the look-out for a story
- Be curious
- Be in touch with photographers, friends and co journalists
- Change the focus of a story and develop a new angle
- Begin a story with personal experience
- Read and collect information
- Listen to alternative view point
- Update oneself with changing statistics
- Compare and attempt to provide context to the idea
- Localize the event
- Cover the story with a futuristic approach. Predict the consequence of the event.
- Plan follow ups

c. Interviews

Interview is another popular format for TV journalism. It is important to follow these tips for conducting an interview:

- Prepare well. The journalist must have complete information about the interviewee.
- The interviewee must know the topic of conversation in advance. However, it is not advisable to share the questions with the interviewee in advance.

- Dress appropriately
- Arrive early to make all necessary arrangements
- Make a good first impression.
- Make the interviewee comfortable
- Maintain the focus
- Listen carefully. Listening will help you probe.
- Must know the equipment well. The journalist must be well equipped with the nuances of the microphone
- Must get the interviewee's name and the pronunciation correct.
- Be persistent but courteous
- If confused, ask for clarifications and must observe the interviewee's body language.
- Take notes
- Make sure to protect the source if the interviewee desires anonymity.
- Keep the questions open ended, simple and neutral

2.4.2 Condensing News

After gathering news, it is important to condense news. The length of the news story has to be determined according to the time available for which editing has to be done.

It is important to maintain the accuracy of facts while editing. Every news producer and sub editor should remember that accuracy in reporting makes the channel credible. It is important to ascertain the number of class of people who will be interested in the story and the story will be telecast accordingly. It must be kept in mind that proximity of an event arouses interest in the viewers and so will conflict and contests.

A good news story must have the following attributes:

- It must be brief
- Must include 5ws and 1 h
- Must summarize most important facts in one paragraph
- It must begin with an interesting word or a phrase
- It must have small sentences
- Sources must be attributed

Process of editing: the process of editing simplifies the story/copy for the newscaster. Corrections must be mentioned clearly. The sub editor edits the story and gives it a headline. The sub editor must be competent to edit all types of stories coming to the channel.

2.4.3 Compiling a News Bulletin

News bulletin is a compilation of number of news items. The bulletin is a collective form n which separate news items and placed in a coherent order and also communicate some relationship with each other. Bulletins are put out in series or cycle. Each bulletin has a target audience and it is important that the news editor keep in mind the requirements, interests and preferences of different target groups.

It is important to understand the types of news while compiling a TV news bulletin. News is broadly classified as:

Hard News

Soft News

Investigative News

Maximum stories received in the news room are hard news. Hard news consists of basic facts about the story. News stories about important public events, government actions, international affairs, social conditions, economy, crime, and environment are considered as hard news. They appeal to diverse public. Such stories are an integral part of the television newscast. Radio or TV news is either hard or soft. When the lead contains important facts it is hard news. The lead is supported by the body of the story which introduces new information and it amplifies the lead. The final few points are used to personalise the primary point or introduce another fact. The broadcast news is more formal, conversational and simple. It is written or compiled in a way that sound bites and videos complement the story.

Soft news or feature constitutes a major portion of TV news. They are heavily human interest oriented and appeal to the viewers' curiosity, disbelief, sympathy and scepticism. Television is largely based on soft news content. All stations have feature file where soft story ideas are catalogued. Telecast features use a variety of formats. Humorous leads are also used in Television news. TV news uses narrative structure in storytelling. Interview features are also popularly used in TV news.

Investigative news stories are compiled through the use of non-routine information about significant matters. It requires time and money. They get more telecast time. Telecast investigative reports are packaged in documentaries and are of 10-15 minutes. The reporter must collect interviews and visuals that will illustrate the story and also make it more credible.

2.4.4 Presenting a Television News Bulletin

There are various types of news telecast and each one has a different presentation style. There are newscasters and newsreaders that are expected to merely read the bulletin and the anchors or the news commentators present the news of the day, relate them to the past events and attach them to the future projects and analyse its significance. The news presenter adds personal attitude or by the policy of his station or sponsor. All news channels maintain their ticker service and are used as the grounds for the manuscript prepared by the news producers. In the Indian electronic media, many news producers, anchors and reporters have rich print media background and they have sound developed news sense. Many anchors are well travelled and have worked as reporters which help them in presenting a news bulletin. The most important concern for the news telecaster is that the news story must have human interest, novelty and mass appeal.

Activity: Differentiate between news gathering and news condensing

2.5 Basic Principles of Writing News for Radio

The radio journalist must remember that he is writing for the ear and not for the eye. It is essential to follow the below mentioned guidelines which are the principles of writing news for radio:

- Journalist must keep in mind that sentences should be short
- The journalist must use simple and familiar words which are easy to understand. Lesser known words can confuse the listeners.
- The sentence must be in active form of speech.
- The story must concentrate on the most important part of the story. The ineffective and unimportant material must be eliminated.
- The average length of a news story for radio must be 80-100 words. Sometimes, the stories can be longer or shorter.
- The news must necessarily be presented in a nutshell.
- The journalist must rewrite the stories received from the agencies in a manner that it supports the broadcast news style. Agencies write lengthy stories but radio requires short and brief content.
- Radio newscasters must remember that connect stories have to be rewritten as integrated news item.
- As far as writing for radio is concerned, one should note that the frame of reference is different than what is used in print. So there is no above or below or former or latter for radio.
- Radio newscaster must use variations to break the monotony and extend interest to the story.
- Each sentence should be linked to the previous one.
- Avoid repetition
- Sentence of all the stories and headlines (also referred to as main points in a bulletin) must be complete.
- When a story unconnected with the previous story is introduced in the bulletin, the newscaster has to use device that help in introducing the new story. For example, “At Parliament.” “In New Delhi today.” “Meanwhile in Sports,” which indicate that now the newscaster is on to something different.
- The length of the sentence is another important factor when we talk about writing for radio. Studies have revealed that the ideal length should be 17 words per sentence on an average are considered reasonable limit.
- The economy of words is very important for radio as a medium as is the clarity of idea. One should studiously avoid packing too many ideas or points in a single sentence.

Activity: List 5 basic principles of writing news for Radio

2.5.1 Presenting a Radio News Bulletin

"Radio news is bearable. This is due to the fact that while the news is being broadcasted the DJ is not allowed to talk" Fran Lebowitz

Radio presentation techniques include following:

i. **Speed:** It is important for the radio news presenter to maintain rate of speech while delivering bulletins. The reader/presenter must keep in mind the listening capability of an average listener. The appropriate speed can be between 140 to 220 words per minute. The most acceptable thumb rule is three words per second or 180 words per minute. This also helps in writing scripts; a 20 second lead becomes 60 words and a 30 second story becomes 90 words.

ii. **Breathing:** A news reader/presenter must develop the art of breath control. It is important to do breathing exercises. Shallow breathing is not advisable. The presenter must open the lungs and throat as widely as possible to facilitate deep breathing. It is also important to learn how to hold the breath as it helps in delivering long sentences.

iii. **Projection:** The biggest challenge for radio presenters is to keep the listener attentive, therefore it requires extra effort. Radio presenters must change the tone, pitch and volume according to the content which is being delivered. It is unnecessary to be very loud while delivering a non-conflict or emergency issue. Yelling does not help as it hinders clear diction. The newsreader/presenter must not run through the words, swallow the ends of words and leave sentences.

iv. **Emphasis:** It is pertinent to emphasize on the key words and description. Emphasizing on the key words can extend impetus to the narration. Emphasis also provide dramatic effect on the story.E.g., "Hesaid their actions had made a walk out inevitable." The statement suggests there are others who would disagree with this statement. "Hesaid their actions had made a walk out inevitable." The statement casts doubt on the truth of the statement, implying there are grounds for disbelieving it."Hesaid their actions had made a walk out inevitable." The statement sounds as he is pointing a figure in accusation at another group.

v. **Voice Modulation:** Modulation is called an inflection of the tone or pitch of the voice. Monotony is not advisable. It is necessary to vary the pitch. The presenter must keep in mind the intonation**.** Sentences must begin on an upward note, rise in the middle and end on a downward note. The presenter must maintain uppers and downers. Voice modulation helps in reinforcing the way the sentence is developing and help convey its meaning. It is also necessary to maintain the rhythm while presenting the news. Voice modulation also helps in convincing the audience. Desired effect in speech can be achieved through variation in the volume, shrillness, cadence and pauses.

vi. **Microphone Techniques:** It is important for the newsreaders to understand the technical know-how of the microphones. It is important to maintain safe distance from the microphone. When the mouth is too close to the mike, plosive sounds can produce distortion. The thumb rule is stay 6 inches away from the mike. It is always advisable to use headphones and turn up the volume of headphones to the point that it drowns out your normal speaking voice.

The distance between announcer's mouth and mike produces different effects. The lesser the distance, there will be more natural resonance in the voice as if the announcer is speaking directly into the ears of the listeners. Whereas standing away from the mike and raising the pitch makes the voice sound as if the presenter is speaking live on location.

2.6 Writing News for TV

A standard news story opens with the climax and leaves the details for the closing sentence. It is absolutely different from other compositions like a narrative, short story, a novel, a play or a film. The story in these cases opens gradually and the middle constitutes major information. On the other hand, news story opens with major facts and continues with the relevant details.

The inverted pyramid format is the most used style of news writing where the contents of news comprises what happened? When did it happen? Where did the incident take place? Who is/are involved? Why did it happen and finally how did it happen? The lead of the story is the headline of the news and contains the above mentioned 5 Ws and 1H. the lead is followed by intro which is the introduction and includes the first and foremost part of the news. It contains the gist of the story. Features and essays also have intro. Credit line is mentioned at the beginning of the news story and has the information of the place of news with its source from where it has been obtained. Intro is followed by the body text of the story which contains details of the story.

2.6.1 Types of News Based on Content

News can be classified into three types based on the content:

i. **News based on facts:** The structure of news based on facts is as follows:
   - Leading fact
   - Secondary fact
   - Other fact

ii. News based on Statement: This is also called statement journalism. The story begins with the statement or quote of some prominent personality. The structure of the news will be as follows:

- Lead summary of the statement
- Summary of less important part
- Summary of even lesser important part

These include speeches, views, interviews, talks, comments, opinions based on information which has been recorded either in written form or verbally told to the reporters.

iii. **News based on Action:** It is very different and difficult to write as the reporter has to include description of the persons involved and statement of the eyewitnesses. The lead of the story is narrated first and then the chronological sequence of the event is told which is followed by the background information in detail.

2.6.2 Scripting for TV News

The most important thing to keep in mind while scripting for TV news is that the broadcast copy which is written for TV has to be read aloud by the TV news Presenter and not read silently like a newspaper story. Therefore, it demands special skill sets. The writer must choose clear words and sentences which must be accurate. The sentence, words must compliment the video, pictures and audio that accompanies the story.

The scriptwriter must also write concise stories. The story must be easy to read, conversational and comprehendible. The scriptwriter must adhere to the facts and context of the story. Broadcast writing must be interesting, disciplined and precise. It is obvious that the news stories for Television are the most immediate and updated material. The broadcast story must respect timeliness and a slight delay in transmission can devalue the story.

A broadcast news story is divided into 3 parts:

a. Climax
b. Cause
c. Effect

The use of portable video cameras, lighting and sound equipment to record news events in the filed have increased the efficiency of news producers. The Electronic News Gathering (ENG) has enabled quick transmission of news.

2.6.3 Guidelines for Writing News for Television

There are 4 Cs of broadcast journalism:

- Correctness- accuracy
- Clarity- precise, no ambiguity
- Conversational- must sound like a conversation between two people
- Colour- the story must paint the picture for the viewers

News writing for TV must have the following characteristics:

1. News even by an hour late is considered stale
2. The maximum length of a TV story is 2 minutes; normal length is 30 seconds
3. News story must not have slangs
4. The story must be written in present tense
5. Deadlines are imminent
6. The following conventions of broadcast writing must be kept in mind:
    - Title usually comes before names
    - Avoid abbreviations
    - Avoid direct quotations
    - Attribution must come before the statement
    - Use little punctuations

- Numbers and statistics should be rounded off
- Personalise the news when possible
- Avoid external description
- Avoid using symbols
- Use phonetic spellings for unfamiliar and difficult words
- Avoid pronouns if possible

2.6.4 TV News Script Formats

TV news script is compiled with aural and visual components. The common types of TV news script formats are as follows:

1. **News Item:** In this type, there is no video support. The entire script is read by the anchor. It is shorter than the other formats usually 30 seconds. News producers allow such items if the story is extremely important.
2. **Silent:** Portion of the script has a video support but only the voice of the anchor is heard. The anchor reads the entire script. Normally the script is less than a minute. Silent format is adopted when file videos are used.
3. **Natsot:** Portion of the script has video support and the natural sound on the tape can be heard as background of the anchor's narration. The script is less than one minute; this format is used if the producer wants to emphasize the natural sound (fire incident).
4. **Sound on tape (SOT) :** It refers to the voice clip. The entire script is read by the anchor and it is without any video support. The format is used when no visual footage is available and the script does not exceed one minute.
5. **Silent sound on Tape (SILSOT):** It is a combination of silent and SOT formats. The entire script is read by the anchor. The scripts have video support with natural sound and a SOT is inserted in between. It is used when natural sound has to be emphasized.
6. **Voice over:** It is one of the most common formats when the reporter delivers the main content. The anchor reads the lead and is followed by reporter's pre-recorded/ taped report. The scripts have video support and also carry SOT. The run time exceeds one minute. It is a popular format and is encouraged.

Activity: Discuss various TV News Script Formats.

2.7 News Package

A news package is a type of storytelling used in television news. A news package is a self-contained taped news report in which the news anchor reads an introduction live and then a pre-recorded story is shown. It is often found that a reporter is seen standing before the camera on the scene of the story. This is called stand up and is commonly used in news package. News packages usually run for 1:15 to 2:00 in length. The packages can also be 20

minutes or even longer. News packages are used for complicated stories which have multiple interviews.

The story idea for news package must be newsworthy and interesting. All facts must be accurate and true. It must comprise all the information necessary for the viewers. Multiple point of views must be included. Reputable sources must be used.

2.7.1 How to Prepare a News Package?

1. **Focus:** Pick up one key idea and stick to it. It is important to remember that time is less and it is necessary to provide complete information about one topic to the viewers rather than sharing incomplete information.
2. **Report/shoot/interview:** Decide the visuals who desire to use in the package. Decide on the interviews and schedule them.
3. **Capture video/ audio and log tapes:** Capture the video and keep taking notes which is called logging. Logging also includes the details of where the video will be used in the run.
4. **Writing the Package script:** It is important to simultaneously write the script of the story. It helps in transcribing all sound bites. Write the lead and begin referencing which means synchronising what is being said and shown. Write the body copy and finally write the end of the story. The final line of the story must include the outcue. The final step is checking for the time limit. Read the script aloud and check if the length is perfect. If it is long, edit it and if it is short add lines.
5. **Voicing:** After the script is ready and approved, record it using an audio recorder.
6. **Editing:** The final step is editing the story and exporting the video.

Activity:

Prepare a news package.

Self-Check Questions

Write your answers in the space provided below:

Check your answers against those given at the end of the lesson.

1. List 2 differences between Television and Newspaper as mass communication tools.

_____

_____

2. Mention the steps involved in news packaging

_____

_____

2.8 Summary

Television remains an important mass media vehicle for quick dissemination of information across population. The medium is interesting and attractive. The aural visual quality helps in persuading the masses. The brilliant quality of being a domestic medium it facilitates collective viewing. The informative programmes on TV as well as the entertaining ones provide catharsis to the viewers. It helps in breaking the monotony. The tremendous growth shown by the TV industry in India announces a bright future for the Industry.

2.9 Glossary

News Bulletin: A short radio or TV broadcast of news reports

SOT: Sound on Tape

SILSOT: Silent Sound on Tape

Soft News: News items that focus on human interest are called Soft news

Hard News: News items that focus on facts are called Hard news

2.10 Further Readings

2016, I. M. (2016). *The Future: Now Streaming.* New Delhi: KPMG Media Outlook.

Seema, H. (2013). Mass Communication Principles and Concepts. New Delhi: CBS Publishers and Distributors Pvt Ltd.

Bhatt S.C.(2001).Broadcast Journalism Basic Principles. New Delhi: Har-Anand Publication Pvt. Ltd.

Handbook for Television Broadcasters: Knight International Press Fellowship

2.11 Model Questions

- Explain how a Television News Bulletin is prepared.
- Discuss the Principles of writing news for TV.
- Explain the types of TV news script formats.
- What is a news package? What are the steps involved in preparing a news package?

Answers to Self-Check Questions

1. a. Television is dynamic and newspaper is not.
   b. Television is an aural-video medium and newspaper is a text heavy medium.
2. Steps involved in News Packaging:
   a. Focus
   b. Report/shoot/interview
   c. Capture video/audio and log tapes
   d. Writing the package script
   e. Voicing
   f. Editing

Lesson: 3

BASICS OF TELEVISION SCRIPT WRITING TECHNIQUES

Structure

3.0 Objectives:

After going through this lesson you will be able to :

- Outline the role of the script as a powerful communication tool of expression.
- Explain the need of writing a script and for whom it is written for.
- List of the benefits and beneficiaries of the script.
- Explain the importance of target audience for script writer.
- Develop a story board and explain its uses.
- Develop tips on writing a script for television.

3.1 Introduction:

Script is a written document which is very important in any learning activity. It guides the learner and gives the right direction to its use so that he or she can get as well as give maximum benefit to its end-user. Ever since the evolution of mankind, script and scriptures of the past are the testimony to the life-style, habitats and other related characteristics to the civilization.

Script writing is an art. It brings out the latent talent of an individual about which he or she might not be aware of. It is very important and essential tool of communication which

can be learnt only by its excessive use. The more a learner will try to write and develop a script, the more polished and effective will it be. It is with this purpose an attempt is being made so as to make you - our dear learner - aware of such a powerful tool of the expression and thought.

Friends, you have in your hands this lesson which relates to one of the first and foremost important aspect of Television programmes production, that is, the Script Writing. Right from the word go, I am sure, you have either been provided with or received some sort of information regarding this course - in one form or the other through printed matter and that is in the script form.

This gives rise to a very important question as to what is a Script ? So, let us get started.

In fact, even before the script, the processes of Television programme, production starts with an idea or a number of ideas. From just a seed, it is propagated with a number of creative inputs and takes shape of a story. With plots and sub-plots the story is interwoven with sequence of events and thus, it finally gets the form of the script. This script is then treated and projected on the small screen which is known as the Television or on the bigger screen known as the Feature film.

The idea or the concept or the thinking process may:

- Educate or entertain or inform or it could be a combination of these.
- Be simply the imagination of an individual or a group of individuals.
- Reflect the need of the hour, that is, the present time in all colours.
- An event of the past which may further relate to an event or a good or a bad happening or a calamity.
- Project or highlight the achievements of men and women of great name and fame who are worshipped as idols for ideals.
- At times be reality of a current happening or a tragedy.
- An abstract idea which may or may not be appreciated.

With this background information we can say that the process of Television programme begins with the conception of an idea and ends with the feedback from the audience. Now, over to the Script….

3.2 SCRIPT - AN INTRODUCTION

Though there are different meanings of script but in the context of Television programme production, we can say it is the text of a play or a video film or a feature film or an ad film. Script is more than just putting words and stringing them together. A script supports and highlights the visual images which are viewed by the audience.

A script is a guideline which facilitates in putting a lot of complex things together in a simple and easy to understand language. It is a document which certainly benefits quite a number of people who are involved in programme production.

There is no denying the fact that one must have an idea before writing and developing an effective and interesting script for the medium one is working or writing for.

As is commonly said, “An idle mind is a devil’s workshop.” Here, the only difference is that the mind of a script writer, better still a creative script writer is always pre-occupied and overflowing with a number of ideas.

3.3 SCRIPT - WHO CAN WRITE?

Script is the very base of any video program or a film. It is, therefore, essential to know as to who can take up the challenge of writing a script. There are certain parameters that can help in assessing as to whether an individual can be a script writer. Some of these pointers could be :

(a) Any creative person who is always brimming with thoughts and ideas.

(b) Any person who can come up with and can suggest a number of solutions to a particular and a given problem.

(c) A person who has good command over the language for clear expression and thoughts.

(d) A subject expert who is conversant with the procedure and holds authority on the contents of the topic to be covered in the video program or the film.

(e) Any person who is willing to counter and take up new challenges and new ideas to experiment with.

(f) Any person who has faith in the success of the new experiment he is embarking upon.

(g) An individual who is alive to the needs of the society.

(h) A person who takes up one project at one time and makes every effort to accomplish it against all odds.

(i) A sincere person with compassionate mind.

(j) A person who is not averse to critical analysis, instead is open to healthy or negative criticism and at times even to indifferent suggestions which otherwise may prove the plus point later on in the video program or a film.

(k) Any person who thinks and writes from people’s point of view rather than imposing his view -point.

Like a print journalist, the script writer must always possess enough stationery and a pen to note down immediately any thought or an idea either about a project or a new idea - an idea who knows which may just click and create a history of sorts.

So, friends it is assumed that all of you now have some fair amount of idea, some awareness and considerable knowledge about the script, its characteristics.

Before we proceed further with additional information, education and some practical exercises with respect to *the Script, let us by way of self-assessment exercises answer the question(s).*

SELF ASSESSMENT QUESTION .....SAQ - 01

Question 01. Write briefly the important characteristics of a good Scriptwriter?

Answer 1. .....

.....

……

……

Well, thank you for answering the question and hope you enjoyed this exercise. Now that you have assessed yourself, I think we can proceed further with another equally important question which is:

3.4 WHY WRITE A SCRIPT AND FOR WHOM?

It is important for the scriptwriter to assess for himself the need to write the script. In other words he must answer some queries within before embarking upon such a tedious job as script writing.

Script is such a vital document, which helps a number of people who work day and night to bring the pieces of paper or an idea or a thought to reality. As is most commonly said "*from paper on to the screen".*

The captain of the ship or the Producer or the Director is the first beneficiary of the script. A person who is always looked upon by one and all in the production team in good, bad or difficult times; who is responsible for making or marring a project. The more time an individual spends on scriptwriting or in other words giving shape to the thoughts, the more are the chances of giving a memorable and effective product, that is, the video programme or a film.

In educational video programmes, the second immediate beneficiary of the script is the Subject Expert, who at times also acts as the presenter. Unless he or she knows the details as to whether or where he or she is going to be in vision or where it is going to be simple narration out of vision or where and how outdoor shots are going to be used or inserted or why a particular sequence or a shot is being recorded or where graphics or animation are going to be; the Subject Expert-cum-Presenter will be totally at sea or in other words will not know how and in what shape the video programme is going to be.

As you will experience, making programme in studio is quite an interesting but at the same time a challenging job. No doubt, the main responsibility of the success of a programme lies with the Producer but equally important is the role of the Floor Manager. He or she is the connecting link between the studio floor and the Producer on panel in the production control room. Unless the Floor Manager is not presented with the script and is briefed about the programme, a Floor Manager fails to do any justice to the job at hand. A key person on the studio floor, a Floor Manager is always there to help the Producer in appraising the difficulties of the persons and the professionals on the studio floor to the Producer.

His job becomes more crucial and gains significance as the Floor Manager has to convey and repeat the commands of the Producer. These are in the form of non-verbal cues which are given to all those on the studio floor on behalf of the Producer for facilitating the smooth programme production.

Graphic Artist or the Visualiser is another individual who benefits immensely from the script. The format of the video programme is very clear if the script has been worked out well in a planned way. The shape, size, font and colour of the graphic can be decided in advance in case the script is not only ready but adhered to as well.

Apart from these people, there are umpteen number of professionals, experts, engineers and artists who work day in and day out in various departments giving their best for the success of a video or a film with the help of a script.

These departments or the areas include the Camera - for deciding movement of the camera or that of the subject; the lighting - for illuminating the set and also for creating special lighting effects and mood lighting; the Sound - for selecting the kind, type and total number of microphones needed including the placement of the microphones so as not to obstruct the movement of the camera; the Set Designer - for designing or making or constructing the set as per requirement; the Costume - for selecting the costumes keeping in view the backdrop; the Music Director and the Music Arranger - including the accompanists for composing right music which goes along with the theme of the video programme or the film; but even prior to that, the Lyricist - for writing or penning the soulful words for the soulful numbers; the Make-up man for giving the appropriate effect to an artist through his or her creativity. All this is possible in case the script has been thoroughly worked out and distributed to the artists, the engineers, the professionals working and looking after these and many other departments and activities which are involved in the making of an educational video programme or a film.

Well dear learner, you must have watched these credits, at times at the end or in the beginning of a television programme or a feature film. But now you know their responsibilities as well as their involvement and importance in the production of a television programme or in a film, in case they have the Script in their hands.

I feel we can have another interesting self-assessment exercise. As you are now aware of a *number of people, their role and job responsibilities, let us make it more interesting by including match the following exercise. No doubt, you will answer one question also. Over to you.*

SELF ASSESSMENT QUESTIONS.....SAQ-02

Question 1. Who are the main beneficiaries of a well-planned and drafted Script ? Explain any one of them.

Answer 1.....

.....

.....

.....

Question 2. Match the following

Profession	Job Responsibility
Producer	Lighting plot
Sound Engineer	Designing the dress
Lyricist	Captain of the ship
Lighting Director	Microphone placement
Costume Designer	Soulful numbers
Floor Manager	Placing the cameras
Cameraperson	Faces the camera

Presenter Key person in the studio

Question 3. Explain the role of the person who acts as the connecting link between the Producer and the Studio floor:

Answer3.....
.....
.....
.....

Well friends, I hope you enjoyed in replying the questions as well as matching the production personnel corresponding to their roles and job responsibilities. Also as to why is the Floor Manager, the most sought after person on the Studio floor. Let us move further.

By now we are clear about the need and importance of a good script in the making of an educational television programme or a film. We also know as to who are the important people who benefit from the availability of a properly planned and worked out script. A Producer who does this homework will always reap the fruit from this labour. This gives rise to another question as to

3.5 WHY SO MUCH CONCENTRATION ON WRITING THE SCRIPT

Just as a teacher designs his or her learning activity, it is the same way the script is developed or given a shape or is evolved with the collective involvement of a number of talented persons.

However, it is very important for the scriptwriter or the subject expert to keep in mind some of the limitations while designing or developing or evolving script for the small screen which is now popularly known as the television.

Combined together, the script and the visuals compliment to produce a video programme with the desired effect. Both cover the same topic. At times, when the video programme is screened in a remote area and with no possibility of your reaching the target audience. It is the script which plays the role of a narrative or a subject expert. It elevates the programme to the level of desired understanding or comprehension, provided enough spadework has been done by the Producer, the Subject Expert and the production team.

There is no denying the fact that Television has penetrated into the lives of all human beings and to such an extent that it is labeled as an *'idiot-box',* the *'third parent'* and so on. Still, the Television has fair share of its limitations which must be considered by Producers (along with the Subject Expert) particularly those who are making educational video programmes and not the run-of-the-mill soaps or sitcoms or even commercials.

The four most important limitations which the Television and those involved with it have to encounter and overcome are as follows.

3.6 TELEVISION AND ITS LIMITATIONS

Television is one-way medium: Keeping this first limitation in mind, it becomes the prime duty of the Producer along with the Subject Expert to evolve a self-sufficient script to communicate the desired message. The scriptwriter has to anticipate the questions and answer them as well which the viewer otherwise would have at a particular point. Also that in case of any question nobody would be present to clarify their doubts, if any.

The second limitation which the scriptwriter of an educational video programme must always bear in mind is that **Television is a mass medium:** As in case of this manuscript, the script for an educational television programme is conceived and written for students who possess an average, outstanding and below average understanding of the topic to be covered for making that particular programme. Hence, the designing of the programme is another important thing which must be borne in mind by the scriptwriter while writing the script for educational television programme production.

Television is a visual medium: Visuals communicate lot of things - wanted or unwanted. Therefore, in order to arrest the attention of the students and to generate their interest in teaching or educating them through television as a medium of instruction and learning, it is very important to select the visuals. This becomes more important as there is every possibility of some of you being exposed to using television as a medium of teaching, learning and instruction for the first time. The keyword is to think how a visual would look like on the television screen. As television scriptwriter one has to think in terms visuals which are appropriate only and not catch the fancy or fantasy of the students. In case this happens, the very objectives of the programme will be defeated.

Apart from knowing that the television is one-way medium, mass medium and a visual medium, the fourth thing which must be borne in mind is that the **Television is a costly medium**. With the passage of time, television has grown gradually from its infancy. From playing a third fiddle to the Big Screen, that is, the feature films and the much - in - demand the Print medium, that is, the books and the newspapers, the television has come a long way. Going by its popularity and the challenge it is posing to the films, one can predict number one position for the television as the most powerful medium - whether it is education, information and entertainment.

The recent development and advancements made in the technical, engineering and production aspects, the cost of the programmes made for television is increasing every day. Conscientious scriptwriters always find ways to cut down on the production cost.

Once again we have self-learning exercises which not only act as a breather but at the same time assess ourselves. Here, it goes :

SELF ASSESSMENT QUESTIONS.....SAQ-03

Television viewers keep watching programmes for long hours even when they have the power to switch off their TV sets. Television is, therefore, often referred to as an .....

Parents abroad spend less time with their children. Right from the beginning they are left in the company of the tube. TV, therefore, acts as to .....most of them.

Question 01. List out the limitations of Television. Explain anyone of them and give reason for the same.

Dear friends, we have covered a number of topics. We started with an.....or the..... process which lead to an introduction to the main topic, that is, the..... After this we familiarized ourselves with the qualities of a ....and came to know as to who can write the script. Further, we screened the need to write the script and came to know about the and some other of the script. Then we discussed about the ..... important.....

which the..... and the..... Expert has to keep in mind while designing the educational video programme. (10 marks)

Idea thinking script script-writer main beneficiaries four limitations producer subject.

3.7 KNOW YOUR TARGET AUDIENCE

Now let us move on to another most important aspect which the scriptwriter has to consider and that is the **Target Audience**, the masses for whom the video programme or the feature film is made. He or she must either be conversant with or consider some of the important features and tools while writing the script.

Some of *these pointers are:*

- The level of education or educational background of the audience. This helps in selecting appropriate language and the content of the video programme.
- Previous knowledge if any, on the subject to be covered. This helps in selecting the content judiciously and incorporating it in the topic under production.
- The language known or spoken keeping in view the region for which the video programme or the film is being made; the scriptwriter has to write in the language of masses or the target audience.
- The socio-economic background one must choose analogies or the examples which do not rise the fantasy. It is more important in educational programmes.

3.8 RESEARCH: AN IMPORTANT COMPONENT IN SCRIPT WRITING

Whether it is an educational video programme or a feature film or an ad film or a music video to name a few, a creative art can accomplish its objectives and appeal the masses on the basis of extensive **Research and Selection of Resources**. This is yet another important thing the scriptwriter has to bear in mind. It requires lot of efforts on the part of the scriptwriter and his or her team. They need to collect and collate the desired information not only from the sources but from the specialists or experts in the field. These details must be cross-checked or verified for authenticity and clarity. Also selecting outdoor and indoor locations and seeking permission for shooting is part of this exercise.

3.9 DEVELOP THE PROGRAMME STRUCTURE

Once this is done, the next immediate thing which the Scriptwriter does is **Developing the Programme Structure**. Likewise, in this case too, there are certain guidelines which act as the benchmark for developing or designing the structure of the programme.

Some of the important points to ponder are as given below. They are :

The format of the programme

Presentation of the programme or the storyline is considered along with other things and activities, that is, whether it is to be presented is documentary or drama or docu-drama or lecture based or a mix of these, to name a few.

Hooking the (target) audience

How the opening frame or shot will look like? Or how to start the programme so as to attract the attention of the audience? This is discussed thoroughly and agreed upon mutually by the Scriptwriter in consultation with the Producer.

Visual presentation* of *the video

As the television has visuals which are supported by audio or the sound; the visuals are thought first by the Scriptwriter while preparing the script. In this powerful medium of education, information and entertainment, visual conveys lot of things. The visuals are, therefore, to be selected carefully.

Sequencing the linkages* or *various elements

As the video programme has inputs from different sections, the audio or me visual linkages are very essential and are incorporated in the script to give proper flow, emphasis and variation without disturbing the main content of the programme.

Drawing timeline* of *the video programme or the sequences in film

A timeline is very useful in structuring the programme. If it is drawn or marked carefully, the Scriptwriter can distribute the weight evenly to various inputs in developing the script. He or she can work out as to how much time can be spent on each segment or a sequence. It also helps in writing the exact text or the words required for a particular sequence or a segment or an event.

3.10 DEVELOP THE STORY BOARD

For the logical sequencing of so many segments or events and after pooling all the information, it is now essential for the Scriptwriter to present the same in a way so that all those involved get clear picture of the requirements in the very first look at the script. The scriptwriter does this by developing the **Storyboard.** A simple way is to divide the sheet of paper into two vertical columns. Pictures or illustrations or drawings; information about location etc. is described in the left side. Sound effects or music or the supporting words or the narration is indicated in the right side.

Instructions to various personnel are mentioned in the remarks column. The title of the programme is also mentioned on every page. At times, duration of a particular sequence or segment or the event is also mentioned. This helps in calculating the exact time as well as in cutting down the budget as well.

On the next page is the sample of a Storyboard for your ready reference.

As is quite clear, the 'Title of the Programme' is written on the top.

In this example, the command 'Fade in CAM 01' by the Producer on the panel and is meant for the person operating the Vision Mixer (VM) - an equipment that has all the inputs from different sources plugged into it. He or she is to select the shot of CAMERA 01 and as soon as VM fades-in, the shot on CAM 01 is ON AIR or in other words is 'live'.

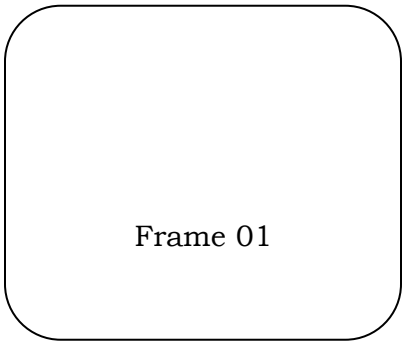
The other command, as depicted or marked on the first page of the Script in the Storyboard Format in the previous page, is meant for the Floor Manager (FM) and the Presenter who is tacing the camera. Whereas the FM only listens to these commands and give the cues; the Presenter watches the non-verbal cues and acts accordingly. Next command 'Slow dissolve to CAM 02' is again for the VM but has to coincide when the Presenter is close to the experiment and the kit. All this is made possible or can be achieved after a couple of rehearsals which are done prior to the final take.

As you can make out, the Presenter will be performing an experiment the 'Narration' portion is left blank, as the scriptwriter cannot guess what the Presenter will be speaking

while doing the experiment. He or she will be selecting words and framing the sentences on the spot.

TITLE OF THE PROGRAM

01



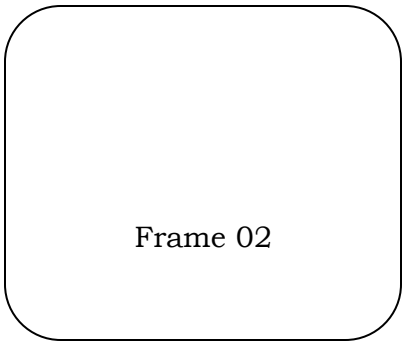
Remarks

Narration

Fade in CAM 01 & Cue Presenter

Slow Dissolve to CAM 02 with Presenter near Experiment & Kit

02



Narration

The serial numbers 1 and 2 are meant for dividing the Camera Shots and Shot Size. This is for the convenience of the Cameraperson's, to get ready and give the shot as demanded; for the Production Assistant to give the ready command to the cameraperson(s) - in case of multi-camera recording and it helps in informing all those at different places to be alert. Now you can, perhaps realize the importance of the Storyboard, the Script and the Scriptwriter in a video programme or a feature film.

Isn't it interesting, thrilling and full of excitement. Just imagine, how the words, sentences, paragraphs, pages full of information get converted or translated into beautiful, meaningful and creative visuals which help you in making the students or the audience learn, know or educate so easily than slugging all along for days together to put across your point of view.

So, dear friends, I hope by now your creative instinct and writing skills must be ready for writing and developing a script of your own. Right !!

Before this, let us have another self-assessment exercise which will gear you for taking up the challenge.

SELF ASSESSMENT QUESTIONS.....SAQ-04

Question 01. Fill in the Blanks

1. The masses for whom a video programme or a film is made are called the..... audience.
2. .....and ..... of .....help scriptwriter to achieve the desired or the set targets.

Target Audience, Previous Knowledge, Language Known, Target

Question Q2. What are the five important points considered for the Development of Programme Structure? Explain any one of them.

.....

.....

.....

.....

.....

.....

Well, thank you so much for being such a support. Or should I say sport or for your cooperation. I hope you can touch your heart in all fairness and admit answering, scoring and evaluating yourself in the above SAQ without cheating yourself.

Before I leave it to you for thinking, developing and writing a script; I still want to do a couple of things.

3.11 SOME TIPS ON SCRIPT WRITING

In the last but one point, I would like to share with you some **Tips on Scriptwriting.** I feel you need them. Agreed. So, here we go.

(a) In the very beginning we started with an idea or a concept or a theme. Shift or jump or change from one idea to another using transitions. However, keep in mind restricted use of transitions in case it is an educational video programme. In the first place think of some alternatives or possibilities. If required, still prefer to use simple effects as transitions or take the help of the things like audio or light.

(b) By now we know that television is a visual medium. The target audience for whom the programme or the film is made will also think of visuals first. The scriptwriter has to think in the same way that is think visually or how a particular visual will look on the screen - big or small. It is, therefore, natural that the script ought to be written for the targeted audience. You have to be very selective in choosing the language, the words, the slang or the style, pronunciation and the level at which they can easily converse or understand.

(c) Effort must be made to avoid using words that you yourself find difficult to pronounce or comprehend. Unless there is facility of playback, they will keep on thinking about the word or the slang which was not clearly understood by them?

(d) Avoid addressing the audience by saying "Let us now see" or "You can see". Remember your audience can and is already seeing. Do not forget, it is the visual medium.

(e) For educational programmes, in case there is any process to be explained, then do so by making each and every step clear and if need be, elaborate .further by quoting or using examples. But do support in audio mentioning pointers or things like 'To start with ...' or 'Let us begin with' ... or 'In the first place.. .' Then in between again tell the number of the step you are at. At times give a link saying 'We have finished with the third step and now will move to the fourth and the last step.....'

(f) If there are additional inputs like slides, transparencies or more recently the power point presentation, then do make a note of it as well as modifications, if any, noticed during the rehearsals. It will help when the actual shooting takes place.

(g) Remember your audience is more powerful than the medium as they can switch off the TV or refuse to subscribe to the whims and fancies of the scriptwriter. Too much lecturing or prolonging the sequences or situations can easily put off the student or the viewer. Avoid this and you will be successful.

(h) There is always scope to improve upon your ideas or situations or presentation of the theme. Read your script and re-read and you will find every time you do so there is marked improvement. This is because the script can be edited too.

(i) Another thing which is to be kept in mind is that the more is the stretching of a particular sequence, the less will be its impact on the viewer which means a loose script. This can be considered as a golden rule that always be short, precise, concise or to the point, simple sentences and less of monologue casts wonders.

Let us have another short SAQ before we have a look at the script.

SELF ASSESSMENT QUESTIONS.....SAQ-05

Question 01. Write ten important tips on scriptwriting and explain any one of them, which you consider the most, giving your reason for the same.

.....

.....

.....

.....

.....

Well, thank you all of you for this final Self-Assessment Question.

My Dear Learner, finally you have before you a copy of the model script for your reference.

3.12 Summary

In this lesson, we have discussed the importance of the script and also listed the important characteristics of a good script writer. We also explained the various steps involved in the development of a Television script. It starts with an idea. Idea should be feasible and attainable in terms of budget, time and other facilities available. Script writer must know his target audience: level of education, previous knowledge, language known, socio-economic background and expectation of the target audience. He must also define the objectives of the programme for which he is writing for keeping in mind the objectives set and the target audience, he develops the programmes structure and finally develops the story-board.

The story board is distributed all among the production crew incharges, so that they can give their maximum contribution during the production of the programme. But it is the producer or the director, who is the most beneficiary of well written script

3.13 Glossary

Ad lib: Improvisation. Unrehearsed and spontaneous comments.

Anchor: The person who reads the news and shows segments taped earlier by reporters.

Ambient sound: Unintelligible background noise found in and generally unique to an audio environment. Ambient sound is the prevailing background sound at a specific location.

Montage: A combination of items, photos, or scenes, often to indicate the passage of time, such as straight cuts (Abrupt transitions) and soft cuts (gradual changes, with bridges or other effects).

Pilot: A sample of a proposed television series. A one-time episode of a proposed series, usually in extended form, to gauge audience reaction.

Promo: Short for promotion (the short-form plural is promos). The term refers to the overall activity conducted by a radio or TV station, or any organization, designed to help sell a particular, designed to help sell a particular product or service. More specifically, broadcast earlier in the day of the program or on the preceding day or days.

Script: Script is a Text/Written document of a T.V.prog./play/ feature film/commercial etc. It is a guideline in which lot of complex things are put together in a simple and easy to understand language. Script is also a written version of the newscast.

Spot: A radio or television commercial.

Sitcom: Situation comedy, a humorous TV show featuring the same characters on each program, generally once a week.

Soap opera: A dramatic serial TV program, originally sponsored on radio mainly by Procter & Gamble and other soap companies; also called a soap, soaper, or daytime drama(because they originated during the day).

3.14 Further Readings

1. Wurzel Allan, TV Production, Mc Graw Hill.

2. Peter UTZ, Today Video, Printice-Hall, New Jersey.
3. Millerson, Television, Production, Focal Press.

3.15 Model Questions

1 What is a TV documentary? What points should be kept in mind while writing a script for a good TV documentary?

2 Prepare a story board for the famous “thirsty crow” story.

3 List the various steps involved during writing a script for a TV educational programme.

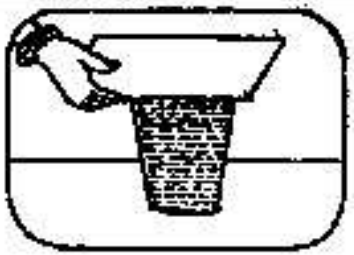
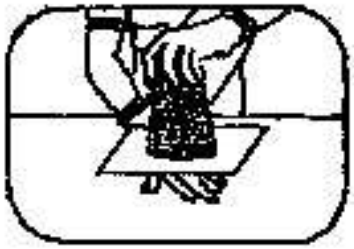
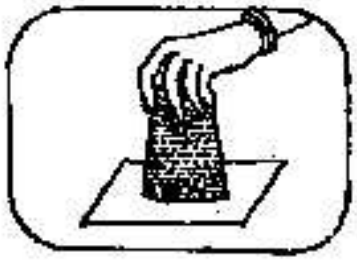
****

*********1.	TITLE	:	**SCIENCE TRICKS : THE AIR AROUND US**		
2. DURATION	:	8 MINUTES			
3. TARGET AUDIENCE	:	Science Teachers and Students.			
4. OBJECTIVES	:	TEACHING	(a)	Informs and educates the target audience about some facts of air.	
			(b)	Emphasis is laid on the two things - Air exerts pressure and - Air has weight	
			(c)	Makes them aware that by using simple, everyday objects one can prove that air has weight and it exerts pressure.	
		LEARNING	(a)	The audience will learn about some out of the many, facts of air.	
			(b)	Motivate students to perform experiment on their own to prove the same facts using some other objects/experiments.	
			(c)	Initiate the audience to explore and see and try to prove for themselves as to “why and air filled balloon bursts when pricked with a needle ?”	
5. LOCATION	:	ETV STUDIO, TTTI, CHANDIGARH			
6. PRODUCER	:	ASHUTOSH KAPILA			
7. PRESENTER	:	SHABNAM CHAUDHARY			

Number	Visuals	Spoken Word	Remarks
1.		**MUSIC**	
2.		**MUSIC**	
3.		Breathes in, Breathes out) Hello, everybody. You have just seen me breathing in and breathing out air (Repeat action) or in other words I was inhaling and exhaling the air. We make use of the air in many ways. And yet, normally we are unaware of it. Today's experiment relate to some facts about air.	

Number	Visuals	Spoken Word	Remarks
4.		For example : Air exerts pressure, Air has weight. Will this can be demonstrated by using some simple, everyday objects. Let us begin by proving that air exerts pressure.	
5.		Here is a glass filled with colored water. And this is a piece of flat card.	
6.		What I do next ?	

TITLE : VIDEO SCRIPT

Number	Visuals	Spoken Word	Remarks
7.		First of all I place the flat card on the top of the glass rim.	
8.		Now I lift this glass and turn it upside down. (Pause)	
9.		And take my hand like this. Why the card does not fall ?	

Lesson: 4

TV PRODUCTION CREW

STRUCTURE:

4.0 OBJECTIVES

- Provide an overview of television production unit.
- Recognise the job titles of key individuals in a TV studio.
- Explain the quality and personality of TV production crew.
- Learn the basic skills to be needed to produce a television programme.
- Provide a brief description of some of the principal team members and their primary responsibilities.

4.1 INTRODUCTION

Various production houses and networks may have different rules and customs regarding job descriptions and working procedures. The standard operating procedure at a major network will differ from what can be expected at a local TV station. In the same way,

the director, producer and other personnel may have different function in different networks. Inevitably the important things remain the same.

Many changes have occurred in television production over the past forty years, but one constant is nature of television as a team operation which requires the skills and abilities of a variety or artists and crafts people to produce the programme successfully. From the simplest program to the most complex, a television production is the sum total of the coordinated efforts of number of skilled individuals who make up the television team. To produce a successful programme, everyone have to put out his hundred percent efforts.

4.2 CATEGORIZATION OF PRODUCTION STAFF

Television production personnel can be divided in to two groups :

1. Production Staff Members
2. Production Crew Members

4.2.1 The Production Staff Members:

These personnel are those who bear the creative responsibility. They are the people who are primarily responsible for programme content and development. They include the producers, directors, script writers, talent (announcers/host/newscasters/musicians/ choreographers) and variety of production Assistants. For budgeting purposes, these creative people are known as **above - the- line personnel.**

4.2.2 The Production Crew Members:

These personnel are those who work primarily with the production hardware and equipment and execute the instructions given them by the creative staff. It does not mean that the production crews are not creative. In fact most of these individuals are “secondary creators” who show their artistic and technical skills within a conceptual matrix designed by one or more of the production staff members.

Production staff crew members include technical director, Floor Manager, audio and video technicians, camera and lighting people, set designers, prop and costume people, graphic artists and variety of crew assistants and technicians. For budgeting purpose these jobs are referred to as **below-the-line personnel.**

Above- the-line personnel

Executive Producer, Producer, Associate producer, Director, Associate Director, Art Director/Set Designer, Costume Designer, Script Writer, Production Manager, Production Assistants, Actors/Announcer/Host/Newscaster/Musicians/Choreographer.

Below-the-line personnel

Technical Director, Floor Manager, Lighting Designer, Engineering Personnel, Sound Recordist, Video Editor, Properties Master, Makeup Artist, Costume Designer, Cameraman, Boom Operator.

Visualiser & Graphic Artist, Prompters, Wardrobe Assistant, Stage Manager, Store Incharge.

To a great extent this division is arbitrary; as there is crossover in some areas especially in operating portable equipment.

As multi-skilling becomes the norm on small productions, there is often very little distinction between the two types of personnel. However, to work in a technical area for a television network, one need skills, training and television experience. If you are thinking of making a career in television production, it is good idea to have knowledge of both areas.

For example, a director may not actually operate any equipment but he must have a good knowledge about the capabilities and limitations of the production hardware — cameras, microphone, switchers, lights and editing units etc. At the same time, the technical personnel require a great deal of creativity to give their best in programme development and completion. A good cameraman not only knows the technical operation of the camera but also should have a good sense of picture composition and lighting-techniques.

4.3 SOME IMPORTANT PRODUCTION STAFF MEMBERS

As given above, there are a number of production staff members. Each member has a specific role in television production. Role and responsibilities performed by some important members is covered in this unit.

4.3.1 PRODUCER

Television production is a producer-led medium, and the producer is the head of a television production team. It is the producer who frequently serves as the decisive figure in shaping a programme. Producer assumes overall responsibility for everything to do with a programme. He is the ultimate authority of all production aspects from its inception to post-production. He starts the process of creating a show, and then goes about getting the money and selecting the production personnel. He selects the writer and picks the technical crew with the assistance of the director. He has a wide range of responsibilities which includes scheduling, budgeting, talent management and creative control. In small organizations, the producer may do multi task i.e., writing, shooting, directing, editing and marketing as well. In such situations he may be called a hyphenate as his job titles are separated by hyphens (e.g. producer-director-writer-editor). It is the producer who enjoys the fame and takes the blame as well when something goes wrong in the production process.

The main responsibilities of a producer are:

- He is the initiator of the programme, who generally develops the concept.
- He arranges the monetary resources and develops the production budget.
- He selects the director and approves the director's approach.
- He along with director selects the script writer, unit production manager and other technical crew.
- He along with director approves the set design and light design, and also looks into the minute details of other production aspects.
- He plans, supervises and coordinates all activities from preproduction meetings to postproduction jobs.
- He keeps production moving on time and within budget.
- He approves last minute changes as they arise.

- He previews the final edited programme and approves the programme for the transmission.
- He coordinates with different networks for the promotion and publicity of the programme.

There are a number of various types of producer. Common types of producer includes :-

Executive Producer: The boss of all the producers. He makes the deal, set the spending parameters, and usually has final say on all aspects of the production. In some cases, however, the executive producer is not much more than an honorary title. In some organisations the producer handles the function of the executive producer.

Associate Producer : His job is to implement the producer's initiative. He works with the producer on specific parts of the programme. Associate producer often runs day-to-day operations, leaving the producer to concentrate on the higher concepts. Sometimes he may book guests, greet guests, do research to find particular people, take care of contracts, back up the production assistant. In some organizations, the AP may shoot a story, edit it and then finalise the graphics and music in postproduction or may keep track of expenses or work closely with the unit production manager.

Line producer : He answers to the producer, executive producer. He takes care of the day to-day operational problems and act as the liaison for the executive producer. He runs the more practical aspects of the production such as logistics and personnel. Supervise the personnel, technology, budget and scheduling aspects of the production.

Co- Producer : Co-producer works with one or more producers as a team on the same project. He reports directly to the executive producer or producers. He has the primary responsibility for the logistics of the production, from pre-production through completion of production. All section heads report directly to the co-producer.

Coordinating Producer : Coordinates the efforts of two or more other producers, either on the same or separate projects.

Segment Producer : Sometimes a large programme may have number of segments. And each segment is managed by a segment producer. He is sole responsible for its production part.

4.3.2 DIRECTOR

The TV director's job varies considerably with the organisation, and the size and type of production. He may be sole responsible for entire business and presentational aspects of the programme, in a combine role of producer and director. Alternatively, he may concentrate on the creative side of production and leave the administration & business to a producer. Thus, we can say that the director is a key figure in a television production team, who unities and guides the whole production team.

The Directors Role :

In a **presentational role,** the director visualises production treatment, and coordinates for a series of separate items or stories that have been prepared by the editorial group (researchers/writers/editors). This is a common practice in regular contributory productions, such as public affairs/current affairs, news, magazines and talk programmes.

In a selective role, the director heads a team of specialists i.e. staging, audio, make-up, costume, lighting, graphics etc. After initial briefing, they contribute their interpretations. The director apprises their treatment and asks for any alteration if he feels necessary. He himself concentrates on the dynamics of talent performance, camera operation and editing part.

In the role of an originator, the director may have devised the concept. He may have written the script and design the staging treatment then his specialist team translates his ideas in to a complete programme.

The Director and Composition

Perceive the pictorial composition for different productions which varies with the type of production and the attitude of individual director. For many shows, where the director is so preoccupied and has not time to arrange the composition of shots specifically, he just only indicates the shot size required (CU, two shots, group shots etc.) and leaves the details of lens angles, framing etc., to the cameraman. In some cases, he may have prepared a story board, showing the detailed composition of certain key shots.

The Director and Editing

In most TV programmes, the director does his own editing-either making spontaneous decisions, or working to a detailed script. Whether he works from a marked-up camera script showing all his planned inter-shot cutting transitions or makes spontaneous decisions during taping, largely depends on the type of programme.

Making editing decisions on the production switcher (Vision mixer), where the preview picture monitors continuously showing the various video sources, the director selects the right editing point, switching the chosen source on the line (transmission, studio output or recording in put).

Post-production VT editing mainly evolves: joining separates 'takes' inserting corrections, cutting extra material. During VT editing, video effects may be added and audio sweetening may also be carried out.

Director in Production Control Room

In a production control room, all members of production team are connected with a common intercom system. The production director, via his headset, instructs his team-cuing action, guiding, explaining, and coordinating their various contributions. The production control room has a row of picture monitors showing the output of various cameras, videotape and other sources. At the instance of the director any source may be selected and switched by the production switcher/vision mixer to the studio output monitor, which will be the master video and will be recorded on the tape or go on transmission. On a simple switcher, the director may operate the switcher himself, but for a complex operations, specialist known as technical director usually does this job, enabling the production director to concentrate on other aspect of the programme.

The main responsibilities of a director are:

- He organize all preproduction meetings
- He works with producer and script writer in script development and finally develops the camera script.
- He finalises different designs and approaches provided by the lighting director, set designer.
- He selects the shots, shot composition, movement of the camera, appropriate cuts and editing points.
- He supervises various rehearsals and does the camera blocking.
- Finally integrate production elements into a coordinate show
- Executive production.
- Supervise editing work to produce the final copy of a successful programme.

4.3.3 SCENIC DESIGNER

Scenic designer designs the sets & staging by keeping the programme concept and objective in mind. He considers the atmosphere, mood, and environment of the set to give a design style or approach for the set. He is a key production team member who attends the earliest production meetings, as until a set is designed and approved, the director can not begin camera blocking and the lighting director cannot plan the lighting as well other activities which depend on the set can not be initiated.

During the preproduction meetings, the set designer plans the set with the program's producer and director. If the script is available, the set designer will conceptualise the design approach as per the script. And if the script is not prepared, he will fully rely on the producer and the director to establish the programm's concept, content and objectives. He considers the basic elements of designs i.e., style, composition, line and texture, contrast and the color.

The set designer also coordinates with the staging crew and lighting crew so that each can do its respective job without getting in the other's way. During the production stage there is rarely much for the scenic director as there would be little that the designer could realistically do without stopping the production. So, during the rehearsal, the designer should watch for any floor clutter from props or furniture. And once the production is complete, the designer supervises the strike process.

4.3.4 FLOOR MANAGER

On large productions, Floor Manager assists the organization in local liaison & location shooting. He helps in pre-studio rehearsal & camera rehearsals. During studio preparations for camera rehearsal, checks all non-technical aspect of the programme. He ensures that there are no staging hang-ups. He guides the floor crew in operating graphics, cue cards, scenic moves etc.

He welcomes the performers, make arrangement for their accommodation and guide them about the schedule of the programme. To arrange all types of equipments, props, scenery, meal, and return these after the production are the part of duty of a floor manager. The FM, wearing his headphones, listens to the director's intercom and passes all the directors' guidelines and information to the talent available on the studio floor. He

anticipates problems, rearranges action, props, furniture portion etc. He supervises staging and property changes. On the director's instructions, FM is the person who normally stops-action on the studio floor.

He is always available on the floor yet never in shot. He takes care to the last-minute correction jobs at the floor. He is always calm, discipline, firm, diplomat and keeps the talent at ease. During the show, he follows the director's instructions and accordingly cues the talent. He anticipates the problems and ensures the smooth running of studio activities. At the end of recording, he holds the talent and crew until the recording made have been checked; make announcement and preparation for any necessary retakes. Finally, he releases the studio, checks out any special items, and logs his report.

4.4 Some Important Production Crew Members

Production crew members mainly have the engineering staff. The engineering-in-chief or engineer-in-charge (EIC) is the top person in engineering section who acts as a link between management and engineering crew and between engineering crew and production crew. The technical director is the direct link between director and engineering crew. A typical engineering crew consists of :

A technical director

Three or four camera persons

An audio engineer

A video engineer

A video editor

One or two boom operators

A crane operator

And a number of technicians and helpers

Here's what some of these crew members do.

4.4.1 TECHNICAL DIRECTOR :

The responsibility of the Technical Director may vary between one organization and another. He may direct cameras, assist the production treatment, and making video switching on the switcher. As a supervising engineer, he may check and control the engineering aspects of the production such as monitoring the sound and video quality, availability of various sources, aligning effects etc.

Technical Director is responsible for technical aspect of the programme. During setup, he plans and rehearses the order of camera shots and types of special effects that will be used during the production through the vision mixer. He sits next to the director and runs the special effect generator or switcher. He listens the associate director's "readies" and Director's "takes" and pushes the buttons of switcher, at the director's command, to put the cameras/ other auxiliary videos "Online".

In a production control room (PCR), technical director has overall responsibility for operations. He is responsible for the proper working of all the equipments in the PCR. He matches the quality and output of all the cameras. He also coordinates the working of the

whole crew and looks into any technical problem which arises before, during or after the shooting.

4.4.2 LIGHTING DIRECTOR:

Lighting director is responsible for planning and executing the lighting for a television programme. During the preproduction meeting, the lighting director discusses the concept, objective of the programme with the director, technical director, audio engineer and set designer. Director provides the copy of the script and floor plan indicating basic camera, and talent positions to the lighting director. The LD uses the floor plan, script and information received during preproduction meeting to design the lighting plot. The LD selects the type and size of lighting instruments, position their hanging and balance the overall intensity of the lighting. He also provides the special lighting effects if necessary.

Lighting director normally visit the studio site prior to planning the lighting plot. He uses paper and pencil in his preparation of lighting plot with a number of different lighting approaches without wasting expensive crew and studio time.

Using the lighting plot as a guide, the LD instructs the crew where to position each instrument, which instrument is to be assigned to dimmer circuits, where to use the scrimmers and cutter etc. The LD uses a light meter to set the intensities of the key lights. He can also use TV monitors to check the lighting, if the camera and monitors are available. He supervises the lighting crew in positioning the lights and balancing each instrument to create the desired lighting effect.

During the camera rehearsals, LD discovers if any additional problem occur and resolves. By the end of camera rehearsals, the lighting is as close to perfect as possible. During the production, LD coordinates all lighting cues based upon the script and performer movement. Once the production is complete, the LD supervises the strike of the lighting. He checks that all screens, scrims and pattern used are removed and stored safely.

4.4.3 CAMERA PERSON:

In television, the audience totally relies on the director and cameraperson to see all the actions that are taking place in front of the cameras. Although the director is responsible for selecting the different shots and angles to cover the required scene, the cameraperson frame and composes the shots. To do this well, he develops a feel for pictorial composition, learned through the combination of his training, practice and experience. He is the most important technician on the operational side of television, who works at great speed, framing and focusing instinctively with a perfection that leaves little room for human error. He has no second chance especially when his programme is on the air. The cameraperson's knowledge must extend over a wide range. A good cameraman should have a strong visual sense to compose a shot, and aesthetic sensitivity to understand the programmes concept and approach, and the physical skill and coordination necessary to operate the camera smoothly and with precision. While composing a shot, he must take two important considerations in his mind:

I Show the viewers what they need to see

II Show the viewers what they want to see.

In technical knowledge, he should have a grasp of basic optics and understanding of various lenses. He must be conversant with the depth of field and the perspective qualities.

He must be familiar with various types of camera mountings. He does not need to familiar with the intricate details of the components of the camera, but he must know what happens when he operates a certain control.

Of the four production phases, the cameraperson is most concerned with two: I. Rehearsal and II. Production. In rehearsal, the director will set up shots and angles during camera blocking. On scripted programmes, the cameraperson will usually receive a shot sheet which indicates each camera shot by number. In unscripted programmes - such as sports coverage - the director usually have a brief meeting with the camerapersons prior to rehearsal to explain the overall production approach and to assign each camera its general area of responsibility.

Before a final shoot, the cameraperson should get shot sheets from the director and attach them to the back of the camera. He must make sure that there is sufficient cable to reach the furthermost position. He must adjust the view finder, unlock the pan and tilt locks and adjust the pan and tilt friction adjustments to suit his preference. He should visualize each shot and rehearse any complicated moves.

Once the dress rehearsal has been done, the cameraperson's important job is to deliver the camera shots and moves which were planned and rehearsed earlier during the production phase. And when the production is complete, cameraperson job is to cap the lens, lock the pan and tilt controls, and truck the camera to its position for storage,

4.4.4 BOOM OPERATOR:

The boom operator, an assistant of the sound engineer is part of sound crew. He manages to keep the microphone boom near to the action, but away from the camera frame, so that it never appears on screen. He works closely to the requirement of sound recordist to record all sound while filming including dialogues, sound effects and background noises. During shooting, he handles the boom and microphone so as to compensate for any irregularities and thus maintain the desired sound standard. He places the microphone, sometimes using a 'fish pole' with a microphone attached to the end and sometimes, using a 'boom' which is a special piece of equipment that allows precise control of microphone. In doing so, he avoids any shadows of microphone or boom on artists or on the set being photographed.

4.4.5 AUDIO ENGINEER:

In a television programme, audio is one of the key components, so the audio engineer in a television production team, the audio engineer is involved in all stages in a television production from pre-production planning to postproduction process.

In preproduction meeting, the audio engineer consult with the director/ producer and other key team members on production approach, and determine the necessary audio requirements for the programme. He obtains the marked script from the producer/director, on which he indicates specific audio cues. After meeting with the programme director, he meet with audio production crew to go over specific job assignments, crew responsibilities and possible problem areas. He also plans for the use of audio in the programme in technical and creative way. In technical way means the technical quality of audio reproduction and in creative way means to use the audio in creative manner and to provide the maximum contribution which audio can make in a programme.

He also considers what kinds of microphones and mounting equipments are necessary? How much talent movement can be expected? Will talent have to share the mike with other performers'? Does the programme need prerecorded tracks? Does the programme need any special electronic effects, any other prerecorded or live sound effects etc.? He also give due considerations to the laying of microphone cables, camera movement and placement.

During the setup period, the audio engineer supervises the activities and responsibilities given to audio crew on the studio set. They collectively check cable connections, set audio levels, mark the audio console's channels for talent's name, and balance the audio sources. They also identify each tape/record/ cartridge and all their incoming remote feeds. The audio engineer also tests all communication systems with the production crew in the studio floor. Finally, he monitors all audio levels in the control room and takes the approval from the director or assistant director.

During the production phase, the audio engineer works from inside the control room and coordinates the activities of the audio crew on the studio floor. He changes the audio levels, cue records and tapes as per the script or with the instructions received from the director.

During postproduction, he helps the audio crew in striking all microphones and audio cables, clear the patch panel, and return the audio control console to its neutral position - all faders down, switches to off. He also returns all prerecorded media (cartridges, discs) to the producer or to the library. During postproduction, the audio engineer helps in audio sweetening and applying equalising and reverb in order to match the sound quality of the overdubbed dialogue with the original sound track.

4.4.6 GRAPHIC ARTIST/VISUALISER:

Graphic design and preparation occur during the preproduction stage. During the graphic meet, the producer and director discuss the graphics needed for the programme with the visualiser/graphic artist. They explain the programme overall concept and objectives to the visualiser/ graphic artist so that he can prepare graphics considering the theme and style or the programme. The artist initially prepares rough sketches to give some idea or how the graphics will look like. Once the rough work is approved by the producer /director, the final graphic are developed.

To prepare excellent graphic work, the graphic artist needs sufficient time. He also needs to know the available money and equipment. For example, if the production unit has a character generator, then the artist will have little or no lettering to do.

The graphic artist normally discusses the following main points during the preproduction stage :

- A graphic artist discusses the theme, approach, concept and objective of the programme. He also takes a view overall mood and tone of the programme.
- The due date of the graphics for rehearsal or the available time for preparation of the graphics
- How the graphic will be used in the programme? How many graphics will be used for titles or credits or elaborate the information?

- Do the stock photos or file graphics cover some graphic work, or will all the graphics have to be specially developed.
- He also discusses about the use of chroma key or Super slides, rear screen projection, use of maps or graphs or animation needed for the programme.

After preparation the graphic work the artist tabs and numbers each graphic. The floor manager or a floor assistant takes these graphics and place on the proper camera graphic stands. During the rehearsal period, each graphic is rehearsed. During the production, the director refers each graphic with its number and shoots the graphic.

Production Staff and their responsibilities during various Stages of Production

Position	**Production**	**Production**	**Postproduction**
Executive producer	Conceive the concept or involve at its inception. Select the writer, director, producer, unit production manager etc. Secure the initial financing. Serve as the primary point of contact for the studio and financing entity. Approve final shooting schedule in consultation with the director and producer. Supervise the overall development process.	Approve final deals for the important components of the production. Provide ongoing in-person consultation with the director and principal cast. He also provide consultation with the designer, art department wardrobe etc.	In consultation with the director, he selects the music composer. Provide in-person consultation with the director on the recording stage, titles. Consult on the media plans and materials, and marketing and distribution plans.
Producer	Develop program concept. Arrange monetary resources and develop production, budget. Assign program's director. Work with writer on script. Select technical crew with the assistance of the director. Approve director's approach, light design, and set design. Develop marketing plan and obtain legal rights. Supervise and coordinate all preproduction planning	Supervise all production activities so that it move on time and with time. Watch rehearsals as surrogate audience and discuss with director for any change or improvement. Approve last-minute changes as they arise.	Approve final edited programme before it goes for transmission. Coordinate with different networks for promotion and publicity. Take the feedback and evaluate to see if it met objectives.
Director	Organise all preproduction meetings.	Supervise various rehearsals and does	Supervise editing work.

	Work with producer and script writer in script development. Create a story and camera script. Create the overall look in consultation with producer. Consult with set designer, lighting director, audio engineer and finalize their approaches and designs. Cast the performers and actors.	camera blocking. Rehearse camera shots in studio. Integrate all production elements to produce a successful programme. Execute production	
Assistant Director	Help director in planning production approach.	Work closely with the director in control room. Alert the director and other crew members to upcoming events. Ready camera shots and other cues during studio rehearsal and recordings Keep track of program timing. Roll in film or videotape segments.	Help the director during editing work.
Script Writer	Work with producer and director in developing script or format by taking care of target audience and objectives. Revise script until approved.	Available for rewriting if necessary.	Available for rewriting if necessary.
Technical Director	Consult with director and producer on necessary technical facilities to be required during production and postproduction.	Take care for overall technical quality. Operate production switcher during rehearsal and recordings.	Operate switcher and effects generator during postproduction.
Lighting Director	Discuss the concept, objective and overall design approach with director, producer and scenic designer. With the received script and floor plan he develops lighting	Instruct the crew about the hanging and focusing of lighting instruments. Set the light intensities. Balance all instruments to create desired effects. Make whatever changes	Supervise the strikes. Check that all screens, scrims and pattern used are removed and stored safely.

	approach & prepare lighting plot for production.	are necessary as problems develop during studio rehearsal.	
Floor Manager	Responsible for all activities on studio floor. Serve as director's "eyes and ears" on floor during rehearsal and production. Supervises props and costumes during rehearsal and production. Passes cues to talent as they come from director. Guides floor crew in operating graphics, cue cards, scenic moves etc.	Passes all cues to talent. Ensure the smooth running of studio activities. Releases the studio checkout and logs his report.	
Camera Person	Sometimes attend preproduction meeting especially in unscripted programmes. Take the notes from the director on the production approach so that he can assign each camera its area of responsibility.	Takes part in camera rehearsals. Operate camera during camera blocking. Prepare cameras and accessories for production. Finally deliver all the camera shots and moves which were planned and rehearsed.	Takes the shots if needed during the post-production process.
Video Engineer	Be familiar with the script and overall production approach. Takes the notes from the director/producer for any unusual hardware needs and technical requests.	Keep the studio and all the equipment ready for operation. Set up and align cameras for best picture. Note video levels and colour accuracy. "Shade" cameras to control for variations in scene brightness. Help director to achieve special visual effects as necessary. Help the lighting director if there is any illumination problem which can affect camera operation.	Prepare editing equipment for postproduction work.
Audio	Consult with director/	Supervise and	Strike all microphone &

Engineer	producer on production approach, determine the necessary audio requirements, indicates necessary cues on the script, assign the specific assignments to the audio crew, prepare necessary audiotapes for sound defects and music.	coordinates the audio crew in studio floor and control room activities, check cable connections, set audio levels, balance audio sources, check talk back system, prepare the audio mixing as per script or instructions received from the director.	cables, clear the patch panel, do the audio sweetening, operate the audio console and other audio equipment in dubbing process.
Scenic Designer	Go through the script and discuss the programme objective, concept & content with the producer & director. Plan the set and staging considering the atmosphere, mood and environment of the set. Develop the floor plan & set, as per the required scene.	Designer has not much to do during the production process. Hence during the rehearsal, he watches for any hindrance or clutter from the props or furniture.	Supervise the studio strike.

4.6 Summary:

TV Production requires the services and skills of a large number of people. Their exact job functions and titles vary between organizations. In most large studios they are performed by specialists, however, one person may be assigned to a number of different responsibilities in a smaller one. In this unit, we have discussed the various production personnel required to produce a television programme. These personnel are divided into two main categories i.e. production staff members & production crew members. These are also called the above-the-line personnel and below-the-line personnel. We have described the role & responsibilities of some of the main personnel. We have also summarized their responsibilities during the various stages of television production.

If you are interested in any one of the areas it is advisable to gain work experience as an assistant and to see whether that area of television production is for you. If it suits you then work for some longer period as a full assistant, before you take an assignment at a higher position.

4.7 Glossary:

Above-the-line: Cost for creative and performing personnel (producer, writer, director, musicians, actors etc.)

Below –the-line: Cost for crew members who work primarily with the production hardware and equipment and execute the instructions given by the creative personnel.

Assignment Editor: The person who decides with the producer, which stories will be reported and assigns reporters to cover them.

Audio Technician: The "sound" person records interviews and other sounds on location.

Director: Seated in the control room the director is the "boss" during the newscast, giving directions to technical, audio and assistant directors and making sure that different scenes from a program appear on the TV screen at the right time.

Gaffer: The crew member principally responsible for transporting, maintaining, and setting up lighting equipment.

Producer: The person who decides which stories will be on the program and how long each will be.

Stage Manager: Working in the studio, the stage manager sends cues and directions from the control room to the anchors.

4.8 Further Readings:

1. Gerald Millersan, Technique of TV production, knowledge Industry Publications, N. York.
2 Wurzel Allan, TV production, McGraw Hill
3 Jonathan Brignell and Jeremy Orlebar, Routledge. London
4 Ivan Cury. Directing & producing for television. Focal Press, New Delhi
5 Television Crew, wikipedia.org
6 Encyclopedia of Film & Television, Focal Press

4.9 Model Questions:

1. Explain the role and responsibility of producer, scenic/Art Director and camera operator in a TV programme.
2. Explain the role and responsibility of a Director, Producer, Lighting Director, Scenic Designer and Floor Manager in a TV programme production.
3. Prepare list of crew members for multi-camera drama shooting in studio.
4. Discuss the job responsibility of Presenter; Technical Director; Lighting Director; VT Editor; Costume Designer; Video Engineer; Audio Engineer; Producer and Assignment Editor, in three phases of television production.

Lesson 5

BASIC SHOTS & COMPOSITIONS: CAMERA MOVEMENTS & ANGLES

Structure

5.0 Objectives

After reading this lesson you will be able to:

- enlist the different camera shots & their usefulness
- understand the basics of camera movement
- gain a fair knowledge of camera composition & framing
- apply the grammar of TV production in practical situations

5.1 Introduction

TV production, which is basically a composite of video and audio production, has its own principles and rules. Just as for writing a composition in English you need to follow the rules of the language. Similarly TV production, for that matter any video production, has its own grammar with rules and principles to follow for composing shots. When you are asked to shoot for a TV production, you don't do it arbitrarily, rather you follow rules so that your output is both technically and aesthetically of a superior quality.

Camera operator must be able to visualize his/her shots. The camera acts as an eye to behold the scenes around. Basically, through your shots and sequences of shots, which are later edited as well, you are creating an audio-visual composition. Therefore, TV is such a powerful medium and must be responsibly used, keeping in view the interests of the target audience. Let us now understand the fundamentals of camera shots, movement, and composition.

5.2 Basic Shots

You are most likely familiar with basic shot types which can be deftly employed to shoot objects and/or any human subject. Even so let us have another look at some of these basic shots. These shots can be understood equally well by framing objects and human subjects. As it is more interesting to frame human subjects capable of dynamic expressions, we have sought to understand these shots by framing human subjects. Later on, you can try to frame objects of different sizes and shapes. First lets us have a look at our first shot, the Medium Close-Up.

5.2.1 Medium Close-Up

In simple terms, it can be described as half way between a mid-shot and a close up. This shot reveals the face more clearly, without being too close to the subject. It is also called a 'two-button' shot as the bottom frame cuts off at the chest, where one would generally see only the top two buttons on a shirt. There is a need felt at times to adjust the bottom frame slightly for men or women on the basis of the costumes they wear. As stated above, in this

type of shot character's facial features are revealed quite clearly. It becomes clear as to where the character is looking, his hairstyle, color, and other characteristics are obvious in the picture. As can be guessed, this is a common shot used in filmmaking. This is because it provides so much information about the character involved in a variety of action, especially when these actions are without exaggerated body and head movements. From the point of view of the audience, the character's face is the object of interest rather than the environment around him/her.

Medium Close up Picture Courtesy: Thompson & Bowen (2009)

5.2.2 Medium Shot

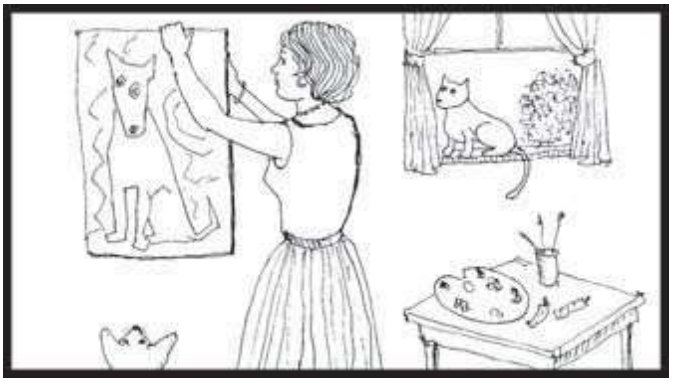
In this type of shot the bottom of the frame cuts a standing man somewhere below his waist and above the wrists if arms are down on the side. As compared to medium close up shot, more headroom will be allowed in medium shot. If the artist is sitting, normally the bottom of frame should cut the arms of a chair. Human torso is prominently visible in the frame, though eyes looking in a specific direction, costumes, and colour of hair are also visible in the frame. This type of shot also provides some important details such as who the person is, the ambience in which he finds himself/herself and the time of the days, say daytime or night.

Medium Shot Picture Courtesy: Thompson & Bowen (2009)

5.2.3 Medium Long Shot

This type of shot is sometimes called the three quarter shot. In this shot the headroom continues to increase as the shots become wider and bottom of frame runs about the level of the subject's knees. The surrounding environment is more visible in the screen space than the subject. As stated, this shot is framed in such a manner that bottom of the

frame cuts off the leg from below or just above the knee. The decision of the point where the leg is to be framed is based on either the costume of the person or his/her movement in the shot. The character's body with such details as his/her clothing, expression, etc is mainly shown. It reveals 'who' and to some extent 'when', rather than 'where'.



Medium Long Shot Picture Courtesy: Thompson & Bowen (2009)

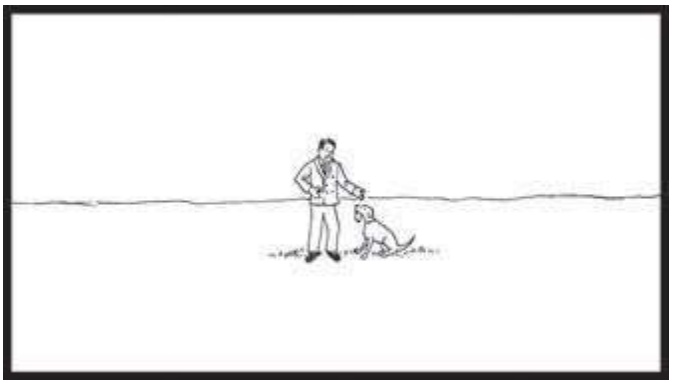
5.2.4 Long Shot/Wide Shot

This type of shot covers the whole body of the subject. Headroom will be increased and there must be a space between the subject's feet and bottom of the frame. But there must always be less foot room than the headroom. The figure of the subject still attracts the attention of the audience, though the surrounding is also visible in the background. It cannot play the role of an establishing shot as the detailed information related to the surrounding environment cannot be obtained. It reveals answers to all the three questions regarding 'where', 'when', and 'who'. All aspects of the body of the subject, gender, clothes, movements, facial expression are visible. However, prominent details regarding his/her face are not available.

Long Shot Picture Courtesy: Thompson & Bowen (2009)

5.2.5 Very Long Shot

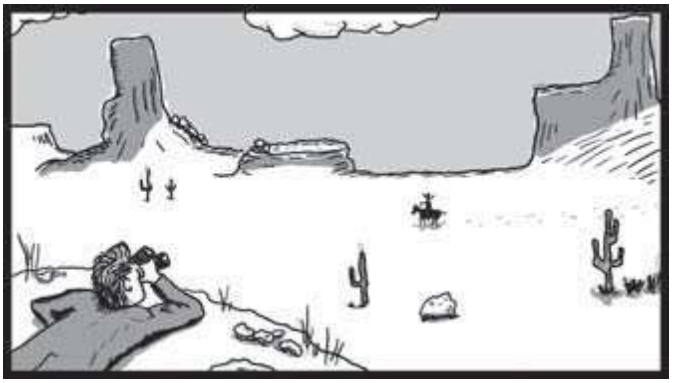
Very Long Shot makes extensive use of the principles of artistic composition. It can be used for both exterior and interior settings. In this type of shot, the circumambient environment is more dominating than the character. Though the character is visible, it is just his/her general features such as hair, clothing, etc which can be observed from a distance. It is an effective shot when used as an establishing shot to show the movement of the character closer to the camera when the action of the shot takes place.



Very Long Shot Picture Courtesy: Thompson & Bowen (2009)

5.2.6 Extreme Long/Wide Shot

Extreme Long Shot, as the name indicates, is a wide shot aimed at revealing the surroundings of the subject with whom a video production is being done. The view is shot so far that the subject cannot even be seen clearly in the picture. For instance, when showing the scene of earthquake devastation, an extreme wide shot would reveal the scale of destruction.



Extreme Long Shot Picture Courtesy: Thompson & Bowen (2009)

5.2.7 Establishing shot

It is generally the opening shot of a new scene in a movie. It is a wide shot that does the job of revealing to the audience the location of the immediately following action. One may quickly have a rough idea about the place, time of day, time of year, weather conditions, etc., by having a look at this shot.

5.2.8 Big Close-Up

In this type of shot the subject's face predominately occupies the frame space. The audience is face-to-face directly with the subject's face. Every facial detail is visible. Therefore, facial expressions should not be exaggerated, rather expressions should be subtle. Head movements should also be minimal, because any exaggerated head movement may put off the interest of the audience. It answers 'who' and 'how' questions, rather than 'where' and 'when'.

Big Close Up Picture Courtesy: Thompson & Bowen (2009)

5.2.9 Close-Up

In this kind of shot, the subject occupies greater part of the frame. Simply stated, a close up of a person implies a close up of his/her face. The aim is to focus on revealing his/her emotional state so as to leave an impact on the subject. It is a close full face shot of a subject showing all details of the eyes dealing with emotions revealed through eyes, mouth and face. Facial expressions, hair colour, make-up in case of women subjects are all clearly visible in this type of shot. The audience is completely attracted to the face of the subject and is not aware of the surrounding of the subject. This type of shot answers the 'who' question, though doing little to answer the 'where' and 'when' questions.

Close UP Picture Courtesy: Thompson & Bowen (2009)

5.2.10 Extreme Close-Up

As the name suggests Extreme Close-Up is a detail shot. The framing is done in such a manner that it highlights one aspect of a subject such as his or her eyes, mouth, ear, or hand. With respect to an object, this shot may signify a magnification of that object or only a part of an object. As this shot is without reference to the environment surrounding the subject or the object, the audience is not able to discern the context of the subject or the object being shown. Therefore, for the benefit of the audience to be able to understand the context of what is shown, the Extreme Close-Up is generally shown either before or after a wider shot in a series of shots. Generally it has been found that this type of shot is used in pieces of work such as documentaries, which are non-fiction in character. Music videos can also employ these shots to give their products a dramatic effect. Fictional creations use them very rarely, depending upon the need of the narrative.

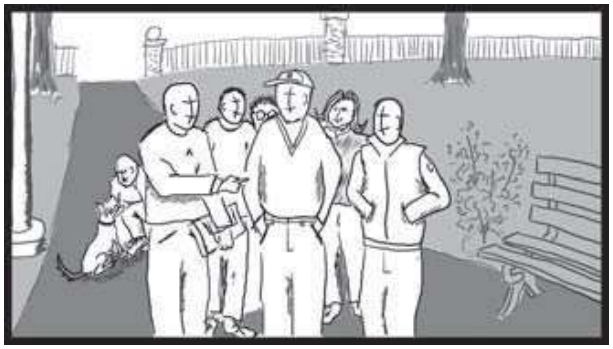
Extreme Close Up. Picture Courtesy: **Thompson & Bowen (2009)**

5.2.11 Two-Shot (2-Shot/2S)

It is a shot framed with two subjects who are either facing the camera or are facing each other in a profile to camera. For this shot framing is determined by such considerations as to whether the subject is standing, sitting, moving, making gestures or performing actions. Mostly, a medium 2-shot is used. However, it does give room for gestures and body movements. Therefore, either medium long shot or long shot 2-shots would give the opportunity for more room around the subjects so that they can move or perform any other action. Also, framing for such shots as medium close up and close up would create a situation in which the two subjects would appear to be intimately poised or connected or are involved in aggressive acts. If you want to see the faces of both subjects, you would have to go for one subject before the other one. In this regard, it is almost always the subject closer to the camera and clearly visible to people are given credence over other subjects.

Moreover, if more persons are included in the shot, it becomes a 3-shot, followed by a group shot or a crowd shot, all on the basis of the number of subjects included as a cluster in the frame.

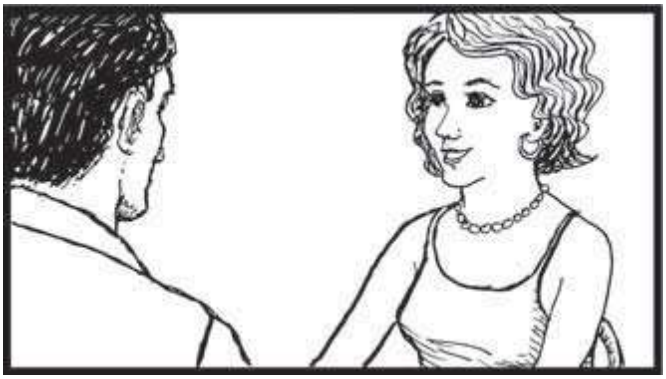
2-Shot Picture Courtesy: Thompson & Bowen (2009)



Group Shot Picture Courtesy: Thompson & Bowen (2009)

5.2.12 Over-the-Shoulder Shot

Over the Shoulder Shot is framed from behind a person who is looking at the subject. This shot is useful in revealing the position of each person, and gives the impression or feeling of looking at one person from the standpoint of another. It is a special kind of 2-shot in which one subject is shown facing the camera, either from the left frame or the right frame, while the other one has his/her neck back at the camera on the opposite side of the frame. The camera shot is taken over one subject's shoulder so as to frame the face of the other one, from the perspective of the audience. If the subject from behind whom the shot is taken is composed any more closer, his/her shoulder may appear to have been 'lost' or cut off from the frame. This is referred to as single dirty. Attempt should be made that the subject towards whom this subject with back towards the camera seems to be talking is more focused on, while the shoulder of the other one appears somewhat blurred.



Over-the-Shoulder. Picture Courtesy: Thompson & Bowen (2009)

5.3 Increasing Shot Complexity

Most of the shots discussed so far belong to a broad category known as simple shots. But simple shots do not always tell every kind of story effectively. Complex shots or developing shots are sometimes employed to tell a story depending on the nature of the story. There are four basic elements that create a shot which determine whether it is a simple shot or a complex one (Thompson & Bowen, 2009).

The first element is lens. Questions are raised and answers sought on whether the camera's lens moves during the shot or removes static. Also, the question arises if the lens movement is obtained using a zoom or a change in focal length.

The next element is camera movement. How does the camera move at the time of shooting? What kind of action does the camera perform - pan or tilt? Does the camera mount assist in camera panning and tilting? Then comes the subject or the character in the shot. The subject could be a human being, an animal or even an inanimate thing. So many questions arise. How does the subject or character move? Is the subject a single person or many persons? Does the subject move during the shot or removes stationary?

5.4 Screen Direction

Screen direction is an important consideration, especially for fictional genres. The movement of the subject or the character out of the frame of one shot and arriving into the frame of another shot must adhere to the requirements of consistent screen direction (Thompson & Bowen, 2009). The reel space must be looked upon as real space thereby

requiring the consistency of screen direction to be followed such as left, right, up and down. For instance, if in one shot a character is shown to exit the frame from the left, in the immediate next shot, the same character should be shown to be entering the frame from the right. If this consistency of screen direction is not maintained, it would confuse the audience and the story would not be clear to them.

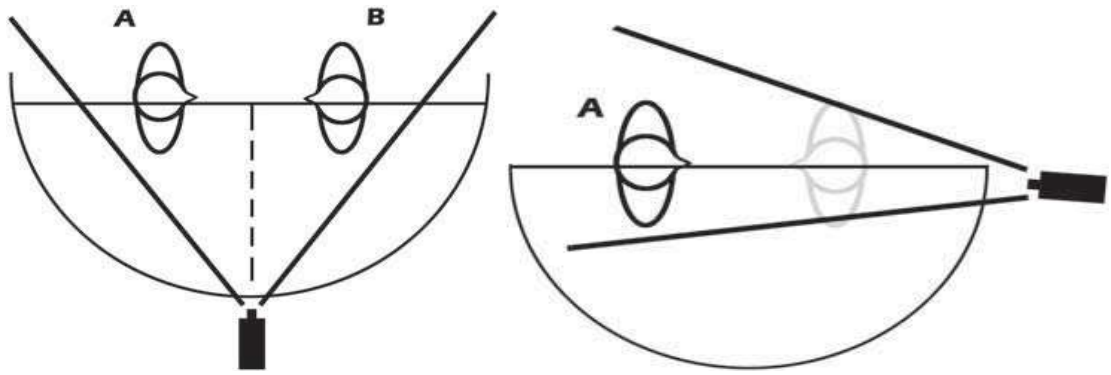
5.4.1 180 Degree Rule/Axis of Action

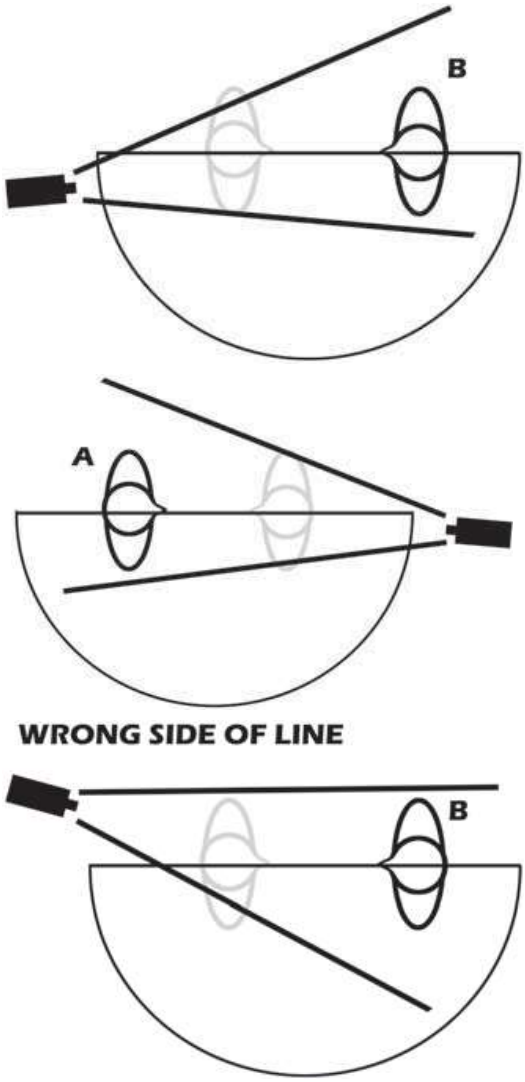
production team taking shots of scenes must adhere to the rule of the axis of action or the imaginary line**.** What is the axis of action or the imaginary line rule being talked about?

The 180 degree rule starts with the first camera covering the scene of action (Thompson & Bowen, 2009). It is generally a wide shot that shows the character and the environment in the scene. An imaginary beginning from the direction of the character's sight line goes across the location, thereby establishing the left and the right frames. Subsequently, each medium or close up shot of the character in the scene ought to be on the same side of the line of action otherwise the audience would be confused while viewing as the character's spatial relationships would be abruptly flipped right to left and vice-versa.

Each successive medium or close-up shot of the talent within the scene must all be set up on the same side of this line of action or else, to the viewing audience, the spatial relationships might seem confusing. For instance, while shooting a conversation between two individuals using a wide long shot, the camera operators will have already decided the side of the room from which to take the close shots of the persons in conversation for full coverage of the event. This choice of a certain side for shooting should remain consistent. If a circle is visualized around the character in the scene, then the camera must move in half of the circle or what is a 180 degree arc.

If you imagine a circle running around the central talent, then the camera can only move and operate within a semi-circle or a 180 degree arc. If the camera crosses this 180 degree arc and shoots a close-up, the character in the scene would seem to be turning and facing in a direction opposite to the previous. This will be confusing for the audience.

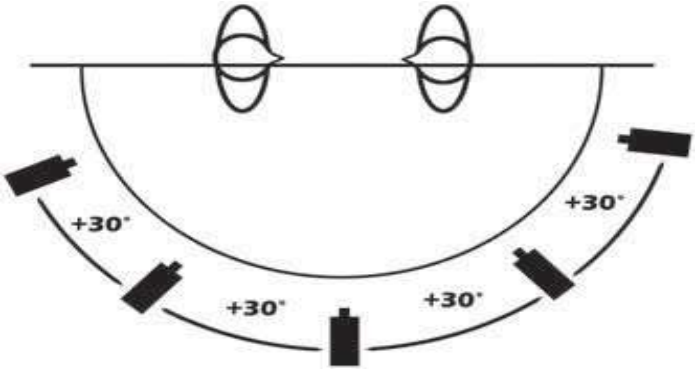




Coverage shots that "cross the line" are generally not usable because they break the established screen direction for the scene. Pictures Courtesy: (Thompson & Bowen, 2009)

5.4.2 30 Degree Rule

The 180 degree rule leads to the 30 degree rule. Following this rule camera operator should move **the** camera around the 180 degree arc by at least 30 degrees before they prepare for another shot of the character. Why must this rule be followed? What is its advantage? This rule becomes important when two shots of a character are taken from two separate locations around the 180 degree arc stated earlier and the physical distance between the two camera locations is less than 30 degrees, then the two shots when placed together may seem to the audience as similar and would create what is called a 'jump' in the minds of the audience. Therefore, you must ensure that the two shots are taken after sufficient movement around the shooting arc or what is also referred to as the angle on action.

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It is advisable that coverage shots whose individual angles on action are greater than 30 degrees apart should be edited along the 180 degree arc. Pictures Courtesy: Thompson & Bowen (2009)

Self-Assessment Exercise 1

Answer the following questions briefly:

1. What is a camera shot?
2. Explain
   (a) Extreme Long Shot
   (b) Over-the-Shoulder Shot
3. What is the importance of180 degree rule?
4. What will an extreme close up show?
5. Why should a camera operator always consider screen direction?

5.5 Camera Movements

There are many camera movements. Some of the more important ones are as follows:

There are times the narrative of the story requires certain pictures which can be obtained through a horizontal movement of the camera from left to right about a central axis. It is known as Pan**.** On the other hand, Tilt is a vertical up or down movement of the camera from a stationary location. This can be done by the operator by holding the camera on his shoulder and moving it up or down.

In Zoom the camera movement is not necessary; it is just the altering of the focal length of the camera lens which provides the impression of movement either towards or away from the camera or the viewer. Pedestal depends upon the subject and it implies the camera

movement vertically up and down in relation to the subject. Trucking implies sidewise camera movement in relation to the action. It is generally regarded to be the same as track or dolly. Dolly refers to a cart which moves along tracks. This is done by mounting the camera on the dolly and recording the shot as it moves along the track. At times dolly shots accomplish the job of providing very dramatic footage. Arc implies moving the camera in a slightly curved dolly or truck movement using a mobile camera mount. In this type of shot the camera moves around the subject. A Follow shot is one in which the operator follows the action while holding the camera. It is quite a challenge to keep the camera steady and must be attempted only when it is absolutely essential and the camera operator is confident of taking a steady shot. However, when this shot is well taken, it gives remarkable pictures. It is generally better, especially for beginners, to use a tripod to mount the camera on before shooting. If you have ever held a video camera and shot, then you would know that every slightest move the camera makes can seem a situation which is several times worse when viewed on the TV screen. For instance, shooting on bumpy roads can be a tricky situation and the viewers would find it difficult to have a smooth viewing experience. Thus, it is very important that the cameraman has a steady hand in holding the camera while shooting, and every movement the camera makes is in slow motion. If you are the cameraperson, then develop the ability to move your hands about the camera in slow motion. For instance, your acts related to camera such as placing your hand on the camera lens to focus, to change the iris, or to engage the fade sequence, all should be done in slow motion. A single shake or bump while shooting with a camera may seem like an earthquake. A conscious effort should therefore be made to avoid walking with the camera held in the hand. If at all you need to walk with the camera, walk with bent knees and waist so as to ensure your head remains steady. This, of course, would require a lot of practice as walking in this manner with the camera in hand would not be very easy. Avoid obstacles of any kind while walking in this manner with the camera. The trajectory of your path should also be known beforehand.

Another way to walk yet be more or less steady is to use your free hand to lead yourself along a wall, or any other structure. When walking backwards, extend your arm and hand behind your back so as to feel for any obstacle before your hit on it. The obstacles can be both animate such as people, animals or inanimate such as walls, objects, etc. If you have the luxury of an assistant, ask him/her to lead you as you walk along the path. All these precautions are suggested for the simple reason that camera movements should start and end with a steady shot. Zooms are also employed to give the viewer's eye ample time to relax before the movement begins and after it ends. Normally, this technique takes a second or two. Therefore, during camera movement, a golden rule to follow is to move the camera even slower. This does not mean that one should stop moving the camera. Following moving objects and actions would require techniques such as panning or tilting as discussed earlier. But even when your resort to panning or tilting the camera, ensure that it is done very slowly.

Among the many advantages of camera movement, one of the more immediate ones is that slight camera movements tend to cancel out slight movements of the subject. This lends certain stability to the final picture when it is viewed on the screen.

And finally, it is better to use a tripod while making camera movements. Steady pictures would be the outcome each time you use. However, there would be situations, especially during field shootings when hand held shots would have to be taken.

Self-Assessment Exercise 2

Answer the following questions briefly:

1. What are the various camera movements generally used during shooting?
2. Suggest the precautions to be taken while taking moving shots.
3. Explain
   (a) Tilt
   (b) Pan
4. Is there any difference between Dolly and Zoom?
5. Why is Truck shot used?

5.6 Composition

Composition refers to the arrangement of objects within a shot/frame. It involves the way the various elements within a frame are arranged. Composition is a part of framing process. But when it comes to judgment and creativity to compare shots, there are no established rules to follow and the process is chiefly a subjective one.

How does composition help? Composition helps in two definite ways. It will help you to direct the attention of the target audience to a selected subject and to influence the feelings and emotions of the audience. It is based on the understanding and appreciation of the way man seeks subconsciously to form patterns to relate what he sees to his past experience, and in doing so think in terms of generalized symbols.

But there is a need for caution. Composition should not merely strive for attractiveness; pictures must be appropriate and meaningful. They must do the job of persuading the audience in a particular way, suitable for our purpose.

A television production may be so complex that ideal composition would not be possible; but one can still accomplish a high pictorial standard simply by arranging important shots carefully for each action sequence. Let us now look at some important considerations of composition.

5.6.1 Centering- When an object is enclosed in a shot/frame such as in the TV screen the viewer's eyes generally look first at the center of the area enclosed. This fact must be kept in mind while composing your shots.

5.6.2 Headroom- It is a common experience during shooting and even during post-shooting viewing that objects or the subject near the edge of the frame seems to be crowded. This is particularly true with respect to spacing above the person's head. That's why a need is felt to show an empty space above the person's head to avoid the appearance that the subject is being pushed in the frame.

5.6.3 Rule of thirds- Before you start embarking on video shooting, you must familiarize yourself with some rules of framing in photography. Right at the outset pay attention to any horizontal and vertical lines present in the frame. For instance, the skyline, wires, poles, etc can be the guides here. These horizontal lines, whatever they may be should be level, and the vertical lines should lie in a straight up and down line. Tilted lines should be avoided unless the shoot requires such a framing. Then, follow the rule of thirds, which divides the frame into as many as nine sections.

Important elements in the frame should be placed along intersections or lines in a bid to keep interesting parts of the frame located at 1/3 or 2/3 up or across the frame, instead of keeping them in the center.

Figure: Rule of Thirds Picture Courtesy: Molchina (2012)

5.6.4 Foreground- Objects or the subjects closer to the camera normally appear to be larger. Therefore, compose frames so as to include reference objects of known relative sizes in the foreground. This will adds to the sense of depth in a shot.

5.6.5 Direction of Movement: It has been found that movement towards or away from the camera adds to the illusion of depth. It also creates a dramatic effect as compared to the lateral movement across the frame/shot.

5.6.6 Looking room- When a subject looks towards the shot-whether he is seen in profile, semi-profile, or with his head turned just a little from the square-on position, the cameraman must leave certain amount of space between the subject's eyes and edge of the frame with which the subject can look. This space is known as 'looking room'. The cameraman must be very careful in leaving correct amount of space so as to be able to compare his shot in a balanced and attractive manner.

5.6.7 Selective focus: By making use of the shallow depth of field of longer focal length lenses, one can selectively set the focus so as to provide pleasing composition and to shift the centre of attention within a given shot. With a small aperture, most of the scene will be acceptably sharp focused. Large apertures give a shallower depth of field; at most working distance, only the main subject plane being dead sharp.

5.6.8 High and Low Angle: Positioning the camera above an object often changes the background significantly. It also creates a distinct perspective as compared to placing the camera at the same level. For example, placing the camera below a person and looking up at the person gives that person a dominant appearance.

Self-Assessment Exercise 3

Answer the following questions briefly:

1. What is rule of thirds?
2. Explain
   (a) Direction of movement
   (b) Selective focus
3. Why is looking room in a shot important?
4. Discuss how high and low Angle in a shot can be used to change the background.
5. What is the meaning of 'centering' from the point of view of shot composition?

5.7 Creating Shot Sequences

Now, what is a shot sequence? In simple terms, a shot sequence is the order in which various types of shots are made use of in an attempt to tell a video story effectively. The placing of shots in a certain order gives the impression of a flow in a video production. However, the flow should not be jerky; rather it should be smooth, logical, and easily understandable from the standpoint of the viewer. This aspect is known as continuity. In fact, continuity should remain throughout the production. But how can you achieve this continuity? This can be done by placing the various types of shots in such a sequence that they give the impression of continuity to the audience.

Shot sequences are created just like a human eye views things happening around us. The eye dictated by the mind has the nature of being unable to remain viewing any object fixedly for any more than a few seconds. Eyes keep constantly moving and changing their object of focus in no time. Have you ever visited a cricket match being played? Throughout the match it is expected that we should keep our eyes focused on the centre of interest, the actual match being played by 22 players somewhere in the middle of the field. But have you ever observed your eyes moving about scanning the area, from one end to the other. Then once satisfied with the scanning, your eyes may focus on a player or some players, or even on a member of the audience. After awhile the eyes may again move around scanning again for an interesting piece of information.

What happens when you go for a walk in a park? Have you ever come across any of your friends; may be one of them or even more? What do you do? How do your eyes react? First on entering the park, your eyes just like a video camera scans the surrounding like a long or wide angled shot. In the process you gain an understanding of the surrounding as your eyes provide rich sources of information from within the park. Then, in the process of scanning the surrounding you may have spotted your friend or friends. As you go near them, you begin to focus on them. Having come closer you focus on the face. You observe signs of happiness on their face through their facial expression. This is similar to close up camera shots. During your conversation at times your eyes may decide to canvas your friend from head to toe or in reverse direction. Sometimes during the conversation, your eyes may again scan the surrounding environment for a very short while and subsequently return to focus on your friend or friends. As the conversation goes on, your eyes may move from person to another, from one person to may be a nearby table, from focusing on facial expression of one person to that of the other. There can literally be endless ways in which your eyes may move,

just as a camera may have many different combinations in which it may move. The camera shooting would serve its purpose well if it records a variety of single images and not focus on any one single image for a very long time. It is said that television producers follow a basic rule which says that no single shot should last in excess of 30 seconds and no scene should last more than three minutes. This rule is called the 30-3 rule. Thus, for you, this is the basic idea of how shot sequences are built. The norm is that one long scene is broken down into a number of shots of short duration.

There is another simple way you can understand this process. Have you ever brought a pack of photos for viewing? How do you view them? Do you arrange the cards on the table in a row or do you view one photo at a time then place it at the bottom and bring up the next one for viewing? This is precisely how we view a pack of photos, one at a time and placing the one viewed just now at the bottom and taking up the next photo for viewing and again placing it at the bottom and so on.

5.7.1 Types of Shots in a Basic Sequence

Do you remember from the previous section (4.7) how an eye performs the activities of composing and shooting sequences? Just like the eye, a camera begins its journey with a wide-angle or establishing shot. An establishing helps in establishing in the mind of a viewer the location of an action. It gives answers to such questions as whether the location of action is a large or a small one. It provides many such pieces of information for the benefit of the viewer. In this respect, it is important to understand that the establishing shot should only reveal what is important and relative to the scene. For instance, an establishing shot of a vegetable vendor doing his routine work might show only the vendor and his/her vegetables on a cart and not the entire area where other vendors are sitting. An establishing shot of a beach party might show the entire area of the beach. An establishing shot of a goldsmith at work might show his implements being used in the act of manufacturing ornaments.

After the establishing shot come the medium and close-ups. As you might have understood by now that medium and close-up shots offer the details of the action. Being relative to the scene, medium shots and close-ups have endless possibilities. Normally, close-ups locate you at the closest possible distance from the subject and provide details. You might know that medium shots lie between the wide shots and close-ups and provide broad or general bits of information. Two other types of shots that have proven useful in a shot sequence are the cut-away and cut-in. The cutaway is a shot of an action that is not taking place in the scene. Carrying forward the previous example, the close-up of a crow in a tree by the beach party table would be a cut-away. On the other hand, a cut-in is a shot of an action taking place in the scene. In the example referred to above, if a close-up of the hand of one of your friend's hands at the beach party table is shown, it would be a cut-in. The usefulness of cut-aways and cut-ins are generally overlooked. It is recommended that one should employ more cut-aways and cut-ins during editing. They are an editor's best friend. Cut-aways and cut-ins have the ability to bring variety to a shot sequence. They can make the sequence more interesting. They provide more pieces of information and even assist in concealing mistakes. Another of their uses is that they can be employed so as to shorten a long continuous shot.

5.8 Summary

In very simple terms, it is the shot sequences which ultimately become a TV production. There are various types of shots such as medium shot, medium long shot, long shot, very long shot, extreme long shot, big close up, close up, extreme close up, 2-shot, and over-the-shoulder shot. The shots must be arranged in a sequence depending upon the narrative of the story, the technical and aesthetic requirements. Other considerations such as consistency of screen direction with attention to 180 degree line and 30 degree line rules are very important. At the time of shot composition adherence to such considerations as rule of thirds, centering, headroom, looking room, direction of movement, foreground, etc are equally important. Ultimately, it is the shot sequences which will tell the story and it will become known if the intended message has been communicated to the target audience or not. Therefore, TV production is a team effort and each step towards the final output is very important.

5.9 Glossary

30 degree rule — A cousin to the 180 degree rule, this rule decries that when recording coverage for a scene from differing camera angles within the film set, the camera should be moved around the 180 degree arc at least 30 degrees from one shot to the next to create enough variation on the angle-on-action so that the two different shots will edit together and appear different enough in their framing.

4:3 — The aspect ratio for standard definition television. Four units wide by three units tall — more square in its visual presentation than the more modern high definition 16:9 video display.

180 degree line — The imaginary line established by the sight lines of talent within a shot that determines where the 180 degree arc of safe shooting is set up for the camera coverage of that scene. The camera should not be moved to the opposite side of this action line because it will cause a reversal in the established screen direction.

See also 180 Degree Rule, Axis of Action, and Sight Line.

180 degree rule — In filmmaking, an imaginary 180 degree arc, or half circle, is established on one side of the shooting set once the camera first records an angle on the action in that space. All subsequent shots must be made from within that same semi-circle. Since screen direction, left and right, for the entire scene is established, the camera may not photograph the subject from the other side of the circle without causing a reversal in the screen direction.

Analog — Not digital in nature. Composed of or designed with a more free-form variant not specifically limited to a single, quantifiable range.

Angle on action — The angle from which a camera views the action on the film set.

Angle of incidence — The angle from which incident light falls upon a film set. A single lighting fixture directly overhead will have a 90 degree (from horizon) angle of incidence.

Assistant editor — A support position within a post-production environment. The duties and responsibilities of an AE change with the complexity of the program edited, the budget, and the facility in which the edit is completed. General tasks include

capturing and organizing footage within an editing project, attending to the chief editor's needs, authoring proof copies for review and approval, etc.

Axis of action — The invisible line established by talent sight lines that helps establish what side of the action the camera can record coverage for that scene. The camera should not be moved to the opposite side of this action line because it will cause a reversal in the established screen direction.

Background — The zone within a filmed frame that shows the deep space farther away from camera. Most often the background is out of focus, but serves to generate the ambience of the location.

Back light — A light used on a fi lm set placed behind the talent but pointed at their backside. It generally serves to help separate the body from the background by providing a rim or halo of light around the edges of the body, head, and hair.

Camera angle — The angle at which a camera views a particular scene. Camera angles can be based on horizontal camera positioning around the subject or vertical camera positioning below or above the subject.

Camera person/camera operator — The person, man or woman, who physically handles the camera during the shooting. The main responsibility is to maintain proper framing and composition and to verify good focus.

Camera set-up — A place on the film set where a camera is positioned to record a shot. Each time the camera is physically moved to a new position it is considered a new camera set-up.

Camera support (tripods, etc.) — Any device or piece of film equipment that is used to support the motion picture camera. Tripods, dollies, car mounts, etc., are all examples of various kinds of camera support.

Clip — Any piece of film or segment of digital video media fi le that will be used in an edited sequence.

Close-up shot — Any detail shot where the object of interest takes up the majority of the frame. Details will be magnified. When photographing a human being, the bottom of frame will just graze the top part of their shoulders and the top edge of frame may just cut off the top part of their head or hair.

Complex shot — Any shot that involves talent movement and movement of the camera (pan or tilt).

Composition — In motion picture terms, the artful design employed to place objects of importance within and around the recorded frame.

Continuity — In motion picture production terms: (1) Having actors repeat the same script lines in the same way while performing similar physical actions across multiple takes, (2) making sure that screen direction is followed from one camera set-up to the next, and (3) in post-production, the matching of physical action across a cut point between two shots of coverage for a scene.

Contrast — The range of dark and light tonalities within a film frame.

Coverage — Shooting the same action from multiple angles with different framing at each camera set-up; for example, a dialogue scene between two people may require a

wide, establishing shot of the room, a tighter two-shot of both players, clean singles of each actor, reciprocal over-the-shoulder shots favoring each actor, cut-aways of hands moving, the clock on the wall, etc.

Cut — An edit point (noun). To edit a motion picture (verb).

Cut away (verb) — Editing out of one shot to another shot that is different in subject matter from the previous one, e.g., " cut away from the postman coming through the ngate to the dog inside the house, waiting. "

Cut-away (noun) — Any shot recorded that allows a break from the main action within a scene. The editor will place a cut-away into an edited scene of shots when a visual break is necessary or when two other shots from the primary coverage will not edit together smoothly.

Cut-in — A tighter shot taken either with a long focal length lens or a closer camera position but along the same lens axis as the original wider shot. See also Axial Edit or Punching-In

Depth — The distance from camera receding into the background of the set or location. The illusion of three-dimensional deep space on the two-dimensional fi lm plane.

Depth of field (DOF) — In filmmaking terms, the depth of field refers to a zone, some distance from the camera lens, where any object will appear to be in acceptable focus to the viewing audience. The depth of field lives around the plane of critical focus, it appears one-third in front of and two thirds behind the point of critical focus instead of centered equally. Any object outside the depth of field will appear blurry to the viewer. The depth of field may be altered or controlled by changing the camera to the subject distance or by adding light to or subtracting light from the subject.

Developing shot — Any shot that incorporates elaborate talent movement — a zoom, a pan or tilt, and a camera dolly.

Dirty single — A medium shot to a close-up that contains the main person of interest for the shot that also contains some visible segment of another character who is also part of the same scene. The clean single is made "dirty" by having this sliver of another's body part in the frame.

Dissolve — A treatment applied to the visual track of a program at an edit point. While the end of the outgoing shot disappears from the screen, the incoming shot is simultaneously resolving onto the screen.

Dolly — Traditionally, any wheeled device used to move a motion picture camera around a film set either while recording or in between takes. A dolly may be three or four wheeled, ride on the floor or roll (with special wheels) along straight or curved tracks, or have a telescoping or booming arm that lifts and lowers camera.

Edit — The actual cut point between two different shots (noun). To assemble a motion picture from disparate visual and auditory elements (verb).

Establishing shot — Traditionally the first shot of a new scene in a motion picture. It is a wide shot that reveals the location where the immediately following action will

take place. One may quickly learn place, rough time of day, rough time of year, weather conditions, historical era, etc., by seeing this shot.

Fade — A treatment of an edit point where the screen transitions from a solid color to a full visible image or from a fully visible image into a frame of solid color.

Fade-in (fade up) — Transitioning from a solid black opaque screen to a fully visible image.

Fade-out (fade down) — Transitioning from a fully visible image to a solid black opaque screen.

Fill light — A light of lesser intensity than the key light. It is used to help control contrast on a set but most often on a person's face. It is "filling" in the shadows caused by the dominant key light.

Film space — The world within the film, both currently presented on screen and "known " to exist within the film's reality.

Focal length — The angle of view that a particular lens can record. It is a number, traditionally measured in millimeters (mm),that represents a camera lens' ability to gather and focus light. A lower focal length number (i.e., 10mm) indicates a wide angle of view. A higher focal length number (i.e., 200mm) indicates a more narrow field of view where objects further from the camera appear to be magnified.

Focus — The state where objects viewed by the camera appear to be sharply edged, well-defined, and show clear detail. Anything out of focus is said to be blurry.

Footage — The raw visual material with which the editor works. It is a general name given to the recorded images on the film or video tape that were created during production.

Foreground — The zone within a filmed frame that starts near the camera's lens but ends before it reaches a more distant zone where the main action may be occurring. Any object that exists in the foreground of the recorded frame will obscure everything in the more distant zones out to the infinity point.

Frame — The entire rectangular area of the recorded image with zones of top, bottom, left, right, and center.

Handheld — Operating the motion picture camera while it is supported in the hands or propped upon the shoulder of the camera operator. The human body acts as the key support device for the camera and is responsible for all movement achieved by the camera during the recording process.

Hard light — A quality of light defined by the presence of strong, parallel rays emitted by the light source. Well-defined, dark shadows are created by hard light.

Head — The common film term for the beginning of a shot, especially during the postproduction editing process.

Head room — The free space at the top of the recorded frame above the head of the talent. Any object may have head room. Too much head room will waste valuable space in the frame and not enough may cause your subject to appear cut off or truncated.

Imaginary line — The invisible line established by talent sight lines that helps establish what side of the action the camera can record coverage for that scene. The camera should not be moved to the opposite side of this action line because it will cause a reversal in the established screen direction.

Jump cut — An anomaly of the edited film when two very similar shots of the same subject are cut together and played. A "jump " in space or time appears to occur that often interrupts the viewer's appreciation for the story.

Key light — The main light source around which the remaining lighting plan is built. Traditionally, on film sets, it is the brightest light that helps illuminate and expose the face of the main talent in the shot.

Light meter — A device designed to read and measure the quantity of light falling on a scene or emitted from it. Often used to help set the level of exposure on the fi lm set and, consequently, the setting on the camera's iris.

Line of action — The imaginary line that connects a subject's gaze to the object of interest viewed by that subject; for example, a man, standing in the entry way of an apartment building, looks at the name plate on the door buzzer. The " line " would be traced from the man's eyes to the name plate on the wall. The next shot may be a big close-up of the name plate itself, giving the audience an answer to the question,

Log — Generally, all shots are written down while shooting. This list is called a shooting log. During the creation of an editing project, shots that are going to be used from original tape sources are also logged. After the entire sequence is completed, an edit decision list (an edit log) can also be created to keep track of the shots used and the time codes associated with them.

Long shot — When photographing a standing human being, their entire body is visible within the frame and a good deal of the surrounding environment is also visible around them.

Medium shot — When photographing a standing human being, the bottom of the frame will cut off the person around the waist.

Over-the-shoulder (OTS) shot — A shot used in filmmaking where the back of a character's head and one of his shoulders occupy the left/bottom or right/bottom foreground and act as a " frame " for the full face of another character standing or seated in the middle ground opposite from the first character. This shot is often used when recording a dialogue scene between two people.

Pan — Short for panorama, the horizontal movement, from left to right or right to left, of the camera while it is recording action. If using a tripod for camera support, the pan is achieved by loosening the pan lock on the tripod head and using the pan handle to swivel the camera around the central pivot point of the tripod to follow the action or reveal the recorded environment.

Pedestal — A camera support device that has vertical boom and 360 degree free-wheel capabilities. Most often used on the floor of a television studio.

Post-production — The phase of motion picture creation that traditionally happens after all of the live-action film or video is shot (production). Post-production can

include picture and sound editing, title and graphics creation, motion effects rendering, color correction, musical scoring, mixing, etc.

Pre-production — The period of work on a motion picture project that occurs prior to the start of principal photography (production).

Production — The period of work on a motion picture project that occurs while the scenes are recorded on film or video. This could be as short as a single day for a commercial or music video or last several months for a feature film.

Rule of thirds — A common gauge of film frame composition where an imaginary grid of lines falls across the frame, both vertically and horizontally, at the mark of thirds. Placing objects along these lines or at the cross points of two of these lines is considered part of the tried and true composition of film images.

Running time — The actual time an entire edited program takes to play through from start to finish.

Screen direction — The direction in which a subject moves across or out of the frame; for example, a person standing at the center of frame suddenly walks out of frame left. The movement to the left is the established screen direction. When the next shot is cut together for the story, the same person must enter the frame from frame right, continuing their journey in the same screen direction — from the right to the left.

Sequence — A number of shots joined together that depict a particular action or event in a longer program. Sometimes likened to a scene, but a longer scene may have several key sequences play out inside of it.

Shot — One action or event that is recorded by one camera at one time. A shot is the smallest building block used to edit a motion picture.

Shot list — A list of shots, usually prepared by the director during pre-production, that will act as a guide for what shots are required for best coverage of a scene in a motion picture project. It should show the shot type and may follow a number and letter naming scheme.

Soft light — Any light that has diffused, non-parallel rays. Strong shadows are very rare if one uses soft light to illuminate talent.

Storyboards — Drawings often done during pre-production of a motion picture that represent the best guess of what the ultimate framing and movement of camera shots will be when the fi lm goes into production. The comic book like illustrations will act as a template for the creative team when principal photography begins.

Straight cut — An edit point where the picture track and sound track(s) are cut and joined at the same moment in time. See also Butt-Cut.

Take — Each action, event, or dialogue delivery recorded in a shot may need to be repeated until its technical and creative aspects are done to the satisfaction of the film makers. Each time the camera rolls to record this repeated event is a “ take. ” Takes are traditionally numbered starting at “ one. ”

Three point lighting — A basic but widely used lighting method where you employ a key light for main exposure on one side of talent, a fi ll light to contrast control on the opposite side, and a back light for subject/background separation.

Tilt — The vertical movement, either down up or up down, of the camera while it is recording action. If using a tripod for camera support, the tilt is achieved by loosening the tilt lock on the tripod head and using the pan handle to swing the camera lens up or down to follow the vertical action or reveal the recorded environment.

Track in/out — Moving the camera into set or pulling camera out of set, usually atop a dolly on tracks. Also known as trucking in and trucking out.

Tripod — A three-legged device, often with telescoping legs, used to support and steady the camera for motion picture shooting. The camera attaches to a device capable of vertical and horizontal axis movement called the tripod head, which sits atop the balancing legs.

Tripod head — The device, usually mounted on top of tripod legs, to which one attaches the camera. The head may have panning and tilting functionality.

Truck in/out — Moving the camera into set or pulling camera out of set, usually atop a dolly on tracks. Also known as tracking in and tracking out.

Two-shot — Any shot that contains the bodies (or body parts) of two people.

Vari-focal lens — Another name for a " zoom " lens. A lens that has multiple elements that allow it to catch light from various focal lengths or angles of view on a scene.

Voice-over narration — An edited program may require the voice of an unseen narrator who provides important information or commentary about the story that is unfolding. The voice is heard " over " the pictures.

Wipe — An editing transition where an incoming shot's image literally wipes the existing outgoing shot ' s image from the screen.

Zoom lens — A camera lens whose multi-lens construction and telescoping barrel design allow it to gather light from a wide range or field of view and also from a very narrow (more magnified) field of view. The focal length of the lens is altered by changing the distances of the optical elements contained within the lens barrel itself. Most modern video cameras have built in optical zoom lenses that can be adjusted from wide to telephoto with the touch of a button.

---Sourced from Thompson & Bowen (2009)

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5.12 Model Questions

Answer the following questions in details.

1. Explain the rule of thirds with a suitable example.
2. What basic elements would you consider at the time of composing your shots? Why are these elements important?
3. Discuss the precautions to be taken when moving a camera.
4. You have been asked to shoot the scene of a vegetable market in your locality. Suggest the sequence of shots you would follow to shoot the scene.
5. How would you apply the 180 degree and 30 degree rules for shooting?

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Lesson: 6

INTRODUCTION TO RADIO SOUND: MIXING, BLENDING & RESHAPING

STRUCTURE

6.0 Objectives

After going through this lesson you will be able to:

- Understand the concept and techniques of sound editing
- Learn the tools and techniques of sound mixing and layering

6.1 Introduction

It is very essential that before we understand the concept of sound mixing we have a fair understanding of sound editing. In many organizations sound editing and mixing are performed by the same person or team.

To understand the nuance of sound editing it is very important to understand that how the editing process is different from that of editing pictures. The process if picture (Video) editing is one dimensional wherein one shot is cut, dissolved or faded (in or out) in to another shot. In picture editing once this cutting and joining of two shots is done nothing much happens till we move to next such transition. Sound editing, on the other hand, is a multidimensional process. Sounds are usually layered so editing audio becomes more than just making transitions. In a situation or narration, a character of the story may be speaking to another character with traffic outside, sound of water running from tap in the kitchen sink, sound of a clock ticking, sound coming from a television set and let us not forget there is a background music also known as underscoring music accompanying all these sounds. All of these elements must be edited so that the various sonic layers are properly matched and synchronized and the perspectives are maintained.

6.2 Digital Editing (Nonlinear Editing)

Digital editing allows the assembly of disk-based material in or out of sequence, taken from any part of a recording, and placed in any other part of the recording almost instantly. It is therefore also referred to as nonlinear editing. Nonlinear editing is not new. Film and audiotape have always been edited nonlinearly; that is, a sound is accessed in one part of a recording and added to another part of the recording, or deleted, in whatever order the editor chooses.

In today day and age, nonlinear editing refers to software programs which provide for recording and editing audio content with the help of tools that are far beyond the imagination of any editor who used to edit audio when computers and these software were not around. These nonlinear editing software allow the editor to see a sound in its wave form, examine it, edit it at any stage, cut, copy, past, remove or delete content, restore changes made at any point to the original form quickly and flawlessly.

6.2.1 Types of Non Linear Editing: Nonlinear editing is mainly of two types: Two-track and Multi-track.

6.2.1.a Two-track editors are typically used in radio for news, call-in programs, and various types of less complex stereo production. They are suitable for any production and on-air situation in which speed is important.

6.2.1.b Multi-track editors are used for more-complex productions that require the layering of multiple segments of audio, such as commercials, music recording, and sound tracks.

6.3 Basic functions found in nonlinear editors (editing software)

There are variety of sound editing software available in the market. The price and level of sophistication of these software vary from one brand to another. However some of the basic functions found in almost all NLEs are essential to learn in order to get an overview if digital editing.

When audio content is recoded digitally, the encoded audio takes the form of a sound file, which contains information about the sound such as amplitude and duration. When the

sound file is opened in any NLE, the information is displayed in the form of a wave on the monitor along with the overall features of the edit screen.

The waveform displays the profile of a sound's amplitude over time. It becomes easy to spot the dynamics of sound by examining the sound in wave form. (see figure 1).

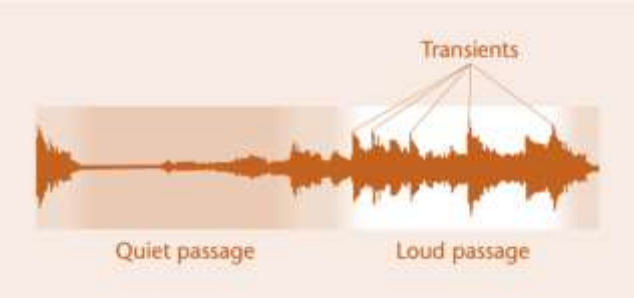

Figure 1: Sound in Waveform with its dynamics

One can also zoom in to see greater detail in a waveform, a function that allows to edit with extreme precession. Once the sound file is retrieved, the editor can carefully audition the file to identify the sections that require editing.

When a sound clip is played, a play cursor (also known play head), runs through the waveform, allowing the editor to see accurately the part and the shape of the sound that is playing at any given point. When the editor decides which part of the sound is to be edited, segment can be highlighted as a defined region. After defining the region, the edit is performed only in the selected section of the waveform. (As shown in Figure 2)

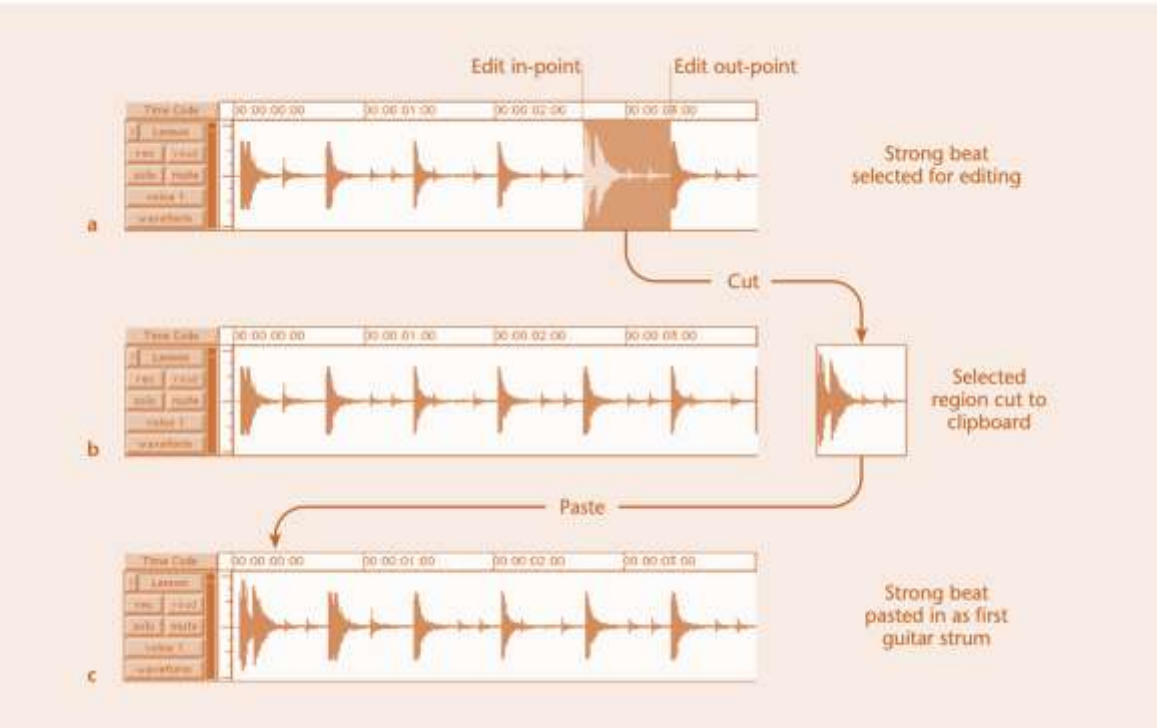

Figure 2: (a) selecting the defined region to edit, (b) cutting it to the clipboard, and (c) pasting it to the first position.

The selection can be cut from the waveform display, moved or copied to another part of the waveform or to another waveform. Besides cutting and moving other edits like inverted or changed in level etc., can also be performed over the selection.

The process of moving or rocking the play head through the defined selection is called **Scrubbing**. Scrubbing can be done at any speed and in any direction (front to back or back to front). While scrubbing, one can easily locate the in and out point of the defined region both audibly as well as visibly.

In digital editing, the basic operations are very similar to the operations of Microsoft Word document. For instance when on a MS Word document you delete a word entirely or cut or copy it from one part of a sentence, it is stored on the clipboard before you paste it somewhere else likewise when a region is defined in NLE, the cut command removes it from its original location and copies it to the clipboard. Using the Copy command, the defined region is added to the clipboard but is not cut from its original position. The Paste command copies the defined region from the clipboard and inserts it into the waveform immediately after the position of the play cursor.

To place a defined region in any part of the waveform one can use the additional paste function. To reverse the previous edit or in order to apply the edit or change again, undo/redo is used.

Snapping tool is used to attach a defined region to another with no gap or difference between them. It is similar to how opposite poles of a magnet are pulled towards each other.

The slipping tool is used to move a selection freely within the timeline. It can also allow the defined region to overlap a portion of another selection.

If one has to adjust the track view, scaling and zooming can be used. Scaling and zooming allows the waveform to be change dimensions. For example, the length of the waveform can be made taller or shorter and can even be expanded to either right or left.

The tool used to expand or shorten a selected region to choice of length, the editor uses the Trim or Crop tool. The Trim or crop tool is a fast way to remove noise or silence from the beginning or end of a sound clip. The Delete Silence tool is also available in some of the NLEs. The tool is used to remove unwanted silences on sound tracks.

The length of a sound file can be either increased or decreased with the help of Time expansion and Time compression tools respectively. In most of the NLEs, this tool expands or compresses the length without altering the sound's pitch.

In case the editor desires to repeat the same sound file several times, the looping tool is used. The looping tool is also used to create pitch sifting and synthetic sound.

Track Grouping moves two or more tracks when they have to retain a direct time relationship for example in a music recording, this function is used when one track contains the vocal, another track contains the accompanying piano, and other tracks contain the supporting rhythm instruments.

The start display gives the start point of the selected region. Similarly, the end display provides the end point of the selected region. The duration of the selected selection is

displayed by length display and the present point of the play cursor is indicated by the current selection.

6.4 Transitions

Sequencing two sounds involves creating a transition, which helps establish pace. In audio editing four techniques are used to make transitions: segue or cut, crossfade, soft cut, and fade-out/fade-in.

6.4.1 Segue and Cut

Segue (pronounced “seg-way”) is a musical term that means “follow on.” In radio it refers to the playing of two or more recordings with no live announcing in between or with live announcing over the segue. In a broader sense, segue is analogous to the term cut used to describe transitions in TV and film. In this context cutting from one element to another means establishing a sound immediately after the previous sound stops, and doing it at once, not gradually. In discussing the effects of this particular type of transition, we use the broader term cut.

The cut is standard language for a small related change within the same time, place, or action, such as cutting from someone waking up, to washing, to eating breakfast, or cutting from a striking of match stick and the eruption of a flame to an alarm sounding at a fire station. Cutting creates transitions that are sharp and well defined, picking up the rhythm of sequences and giving them a certain briskness. Cutting also tightens the pace of a production because the change from one sound to another is quick.

Cutting from a fast, loud sound to one that is very slow and quiet, or vice versa, may be too abrupt. Segueing two songs in keys that are incompatible may create a transition that has unwanted dissonance.

Dramas and documentaries provide more of an opportunity to make unnatural cuts because the action can cover the transition, like cutting from a furious storm to the quiet calm of its aftermath, or from a deeply moving love scene to a raucously funny bachelor party. The cut has both an informational and an aesthetic function, and either purpose justifies its use.

6.4.2 Crossfade

The crossfade, in addition to its corrective uses in editing, is another type of transition for smaller changes in time, locale, and action, although you can vary the length of these changes somewhat by increasing or decreasing its duration. The crossfade accomplishes the same thing as the fade-out/fade-in, but aesthetically it is softer, more fluid, and more graceful. It also maintains, rather than breaks, rhythmic continuity and pace.

Crossfade can be produced in number of ways depending on the time and loudness levels of the sounds when they cross each other. To achieve aesthetic satisfaction sound must be crossed when they are fully and equally loud. This keeps audience attention glued with no loss of focus or gap in continuity. If crossfade is made at lower levels, the audience might lose the attention as at lower level crossfade sound like a sloppy fade-out/fade-in.

6.4.3 Soft Cut

A soft cut is a term used with picture when a shot change is brief but not quite as abrupt as a cut or as deliberate as a dissolve. In audio a soft cut can be used for transitions that need a

quick yet aesthetically graceful change. Soft cut is used to cover a minor technical aberration without affecting rhythm, tempo, pace, or dramatic intent.

6.4.4 Fade-Out/Fade-In

The fade-out/fade-in transition is used to make a clearly defined change from one time, place, and action to another. Aesthetically, it is smooth and gentler than the cut. It gives a stronger sense of finality to a scene that is ending and a sense of new possibilities to the scene that is beginning.

Generally, the type of fade used provides not only an aesthetic effect but also an informational one. A slow fade-out and fade-in with silence in between suggests a complete break from one action to another. The change is rather marked because it so obviously and deliberately stops one scene and starts another and also because it changes the pace or rhythm of the material.

Editing Process: Scrub the region to be edited until you are sure of the in and out edit points. If necessary, use the zoom magnification tool for a more precise look at the in- and out-points. These points can be verified using the current position indicator. Click on the selector and drag the cursor from the in-point to the out-point to define the region to be edited. Once the region is defined, clicking on the Edit menu Cut command removes the edit and places it on the clipboard.

6.5 General Guidelines for Sound Editing

1. It is physically easier and sonically cleaner to select the in and out edit points at silent spots in the track. If there is no silent spot, listen and look for the attack of a dynamic, such as a hard consonant, a percussive hit, or other transient sound. The best place to edit is just before the dynamic. The quick burst of its onset usually provides enough separation from the preceding sound.
2. If it is not possible to find a silent or well-defined point in the track, start and end the edit at zero crossings. A zero crossing is the point where the waveform crosses the centerline. It denotes a value of zero amplitude and divides the positive (upper) and negative (lower) parts of the waveform. This technique brings little unwanted audio to the edit when segments are pasted together.
3. If the zero-crossing technique still yields too much unwanted sound at the edit point, crossfading smooths the edit. A crossfade fades out one segment while fading in another and requires sufficient material on either side of the edit point with which to work. Crossfades can vary in length from a few seconds to a few milliseconds.
4. Editing during a continuous sound tends to be obvious because it usually interrupts the sustain. It is better to move the edit to the beginning of the next sound, particularly if the subsequent sound is loud, because the new sound distracts the ear.

5. In performing a fade-in, when a signal increases in amplitude from silence to the desired level over a period of time, or a fade-out, when a signal gradually decreases to silence, the rates of increase or decrease can vary.
6. Avoid using time-based effects, such as reverb and delay, during recording. It makes pasting sections from different tracks difficult because they may not match. Dry tracks are far easier to edit because they provide a more uniform sound.

6.6 How to Organize the Edit Tracks

The approach to organizing edit tracks obviously depends on the number of individual sound tracks involved. If only a few tracks are to be edited, for example in an interview, the procedure is apparent: intercut the questions and the answers so that the continuity is logical. But when numerous sound tracks are involved, like in drama and music recording, it is necessary to devise a system whereby they are organized to facilitate editing and mixing. There is no definitive way of doing this. Before any editing begins, catalog all the sounds and keep a running log throughout the editing process otherwise mix-ups or worse are inevitable. List any special instructions for editing, signal processing, or mixing and any problems with the sound, such as noise, change in ambience, sudden dropout, a fluff in pronunciation must also be listed before the editing begins.

A hard cut, sound effect, such as a car ignition, door slam, or pistol shot, begins and ends cleanly, requiring little adjustment in editing to remain in sync. A soft sound effect, such as crowd noise, buzzing, and ocean waves, does not have a defined beginning and end and does not explicitly synchronize with other audio clips.

6.7 Sound Mixing

Audiences are usually not aware of ingredients of the sound production, they hear only the final product, the result of the last phases in the production process that is mixing and rerecording. The purpose of mixing and rerecording is the same that is to combine the parts of sound clips into a natural sounding one clip.

The final opportunity to rectify of any unsolved problems and to refine the vision of the artist or artists is Mixing. In the process of sound production, unsurprisingly each stage of production leaves some problems for the next stage. Issues that may not be resolvable in one phase can often be looked after in the next phase. But mixing is usually the last stop.

The term mixing is used generally in radio, television, and music recording to describe the process of combining individual audio tracks into two (stereo) or more (surround-sound) master tracks. In theatrical film and television, the dialogue, music, and sound-effect (DME) tracks are premixed and then rerecorded.

Rerecording is the process of combining the DME tracks into their final form that is stereo or surround sound. Regardless of terminology, mixing, premixing, and rerecording have the same purposes.

6.7.1 Purposes of Mixing:

1. To enhance the sound quality and the style of the existing audio tracks through digital signal processing (DSP) and other means

2. To balance levels
3. To create the acoustic space, artificially if necessary
4. To establish aural perspective
5. To position the sounds within the aural frame
6. To preserve the intelligibility of each sound or group of sounds
7. To add special effects (SFX)
8. To maintain the sonic integrity of the audio overall, regardless of how many sounds are heard simultaneously

6.7.2 How to Maintain Aesthetic Perspective

The general purposes of mixing and rerecording notwithstanding, the overriding challenge is to maintain aesthetic perspective. The ears have a strange ability to focus on a single sound in the midst of many sounds. You may have noticed that in a room with several people talking in separate conversations at once, you can focus on hearing one conversation to the exclusion of the others. This capability is known as the cocktail party effect, or just party effect. In mixing and rerecording, it can be both a blessing and a curse.

Mixing and rerecording require that as you pay attention to the details in a recording, you never lose aesthetic perspective of the overall sound balance and imaging. This is easier said than done. Aural perception changes over time. What sounds one way at the outset of a mixing session often sounds quite another way an hour or so later, to say nothing of the listening fatigue that inevitably sets in during a long session. To make matters worse, the ear tends to get used to sounds that are heard continuously over relatively short periods of time. Then there is the desire to make things sound better.

These effects are manifested in several ways. In what sensory researchers call accommodation, the ear may fill in sounds that are not actually there. The ear may also tune out certain sounds and therefore not hear them. This is particularly the case when the focus is on another sound. Because all of the sounds are competing for your attention as a mixer, it becomes necessary to concentrate on those that require processing at any given time. While attending to the details, it is possible to lose the perspective of how those details fit into the overall mix. The more you listen to the fine tunings, the greater the danger of drifting from the big picture. What to do?

6.7.3 Thinks to do to avoid losing perspective before mixing the sounds:

1. Begin mixing sessions rested, including the ears. Do not listen to anything but the quiet for several hours before a mix.
2. Do not take anything that can impair perception and judgment.
3. Keep the problem of perspective always in mind.
4. Take a checks-and-balances approach: after attending to a detail, listen to it within the context of the overall mix.
5. Seek another opinion.
6. As with any lengthy audio session, take regular and frequent “ears” breaks.

7. Try to work in an ergonomically friendly environment with comfortable chair, good lighting, acoustically well-suited monitoring, computer screen level and directly in front of you to avoid neck strain from having to tilt your head, and so on. The less the physical wear, the more perceptual acuity remains intact.

6.8 Mixing for Radio

Another purpose of the mix (and rerecording) to add to those listed earlier is to keep all essential sonic information within the frequency and dynamic ranges of the medium for which it is being made. In other words, you have to take into consideration what type of delivery system will be used to reproduce the audio because it is difficult to create one mix suitable for all systems.

The foremost considerations in doing a mix for radio are the frequency response of the medium (AM or FM), dynamic range, whether the broadcast is in analog or digital sound, and the wide range of receivers the listening audience uses, from the car radio to the high-end component system.

Although conventional AM radio may transmit in stereo and play music from compact discs, its frequency response is mediocre roughly 100 to 5,000 Hz. The frequency response of FM is considerably wider, from 20 to 20,000 Hz. Dynamic range for AM is 48 dB, and for FM it is 70 dB. Therefore it would seem that mixing for AM requires care to ensure that the essential sonic information is within its narrower frequency band and dynamic range and that in mixing for FM there is no such problem. Both statements would be true were it not for the broad assortment of radio receivers that vary so greatly in size and sound quality and for the variety of listening conditions under which radio is heard.

There is also the additional problem of how the levels of music CDs have changed over the years. Compact discs produced 30 years ago had an average level of 18 dB. In 1990, as the pop music industry entered the level wars, it was 12 dB. In 1995 average level was raised to 6 dB. Since 2000 the average level of many CDs is between zero-level (0 dBFS) and 3 dB. As the average level is raised using compression, the music gets louder and has more punch, but dynamic range is reduced and there is a greater loss in clarity.

There is no way to do an optimal mix, for either AM or FM, to satisfy listeners with a boom box, car stereos, and mobile devices that run the gamut from mediocre to excellent and are played against engine, air-conditioner, road, and street noise. To be sure, car stereo systems, for example, have improved dramatically, and surround systems are increasingly available, but unless the car itself is built to lower the noise floor against sonic intrusions, the quality of the sound system is almost moot.

The best approach is to mix using loudspeakers that are average in terms of frequency response, dynamic range, size, and cost and to keep the essential sonic information speech, music, and sound effects within the 150 to 5,000 Hz band, which most radio receivers can handle. With AM radio's limited frequency response, it often helps to compress the sound to give it more power in the low end and more presence in the midrange. For FM mixes a sound check on high-quality loudspeakers is wise to ensure that the harmonics and the overtones beyond 5,000 Hz are audible to the listener using a high quality receiver.

Extremes in equalization (EQ) should be avoided because of FM broadcast pre-emphasis, which boosts the treble range by 6 dB per octave, starting at 2.1 kHz (in the United States) and 3.2 kHz (in Europe). In receivers there is a complementary de-emphasis to compensate for the treble boost. The result of all of this is a flat response and a reduction of high-frequency noise but also a considerable reduction in high-frequency headroom. Therefore, if a mix is too bright, the broadcast processing will clamp down on the signal. As for dynamic range, given the wide variety of sound systems used to hear radio and under different listening conditions, music with a wide dynamic range is usually a problem for most of the audience. To handle dynamic range, broadcast stations employ processing that controls the dynamics of the signal before transmission, thereby bringing it within the usable proportions of a receiver.

Another factor that may influence a music mix, if not during the mixdown session then in the way it is handled for broadcast, is a tight board radio parlance for having no dead air and playing everything at a consistent level. Because most radio stations compress and limit their output, running a tight board tends to raise the level of music with soft intros, back it off as the song builds, and then let compression and limiting do the rest. Songs ending in a fade are increased in level as the fade begins, until the music segues evenly into the next song or spot announcement.

Because of this it is a good idea to keep a mix for radio on the dry side. Compression can increase the audibility of reverb.

HD Radio not only provides the capability of offering multiple programs on a single channel but also produces CD-quality sound and reduced interference and static. Frequency response is 20 to 20,000 Hz, and dynamic range is 96 dB. These parameters greatly improve the sonic fidelity of programs compared with conventional AM and FM broadcasts. This is particularly advantageous to both producers and listeners of music. But, again, the only way to get the full benefit of HD Radio is to have the receiver capable of reproducing its full-frequency and wide–dynamic range signal.

Mixing stereo in radio usually means positioning speech in the center and music across the stereo field without its interfering with the intelligibility of the speech. If there are sound effects, they can be positioned relative to their dramatic placement so long as they do not distract from the focus of the material. Because there is no picture to ground the SFX, and because radio is a “theater of the mind” medium, there is more freedom in positioning effects than there is in TV and film. A lot of movement of SFX across the stereo field, however, should be done only as a special effect and if it is compatible with the production style and the message.

When mixing speech, a mic-to-source distance of 10 to 12 inches avoids an increase in the bass frequencies. Many on-air performers prefer to work more closely to the mic, however, applying a high-pass filter below 80 Hz removes subsonics, and shelving EQ below 160 Hz reduces low- frequency energy.

Radio broadcasters use various devices to deal with the assorted problems related to signal processing, such as loudness consistency, distortion prevention, dynamic range control, and stability of stereo imaging. This is a particular challenge in FM because of its better sound quality compared with AM—and even more so in HD Radio.

6.9 Mixing Versus Layering

Not to quibble about semantics, but mixing suggests a blend in which the ingredients lose their uniqueness in becoming part of the whole. Although such blending is important, in relation to a mix the term layering may be more to the point.

When sounds are combined, there are four essential objectives to keep in mind:

1. Establish the main and supporting sounds to create focus or point of view.
2. Position the sounds to create relationships of space and distance and, in music, cohesion.
3. Maintain spectral balance so that the aural space is properly weighted.
4. Maintain the definition of each sound without losing definition overall.

These considerations come closer to the definition of layering than they do of mixing. Layering involves some of the most important aspects of aural communication: balance, perspective, and intelligibility. When many sounds occur at once, unless they are layered properly it could result in a loud sound drowning out a quiet sound, sounds with similar frequencies, intensities, or coloring muddying one another, sounds in the same spatial position in the aural frames interfering with focus, and sounds that are too loud competing for attention.

For example, if we are in the middle of a car chase and a gun fight, you have got three car engines, the guns, the tire skids, the impacts, the ricochets, the dialog and the music. If we present all that to the audience, then they hear nothing, they hear the mishmash. A common technique is to establish a sound, or sounds, and then reduce the levels when many things are happening constantly. The sounds of traffic and a car engine can be first established and then reduced once the dialogue from the occupants in the car begins. The questions become where should the focus be? What to reduce in level or take out? What do you want the audience to experience?

6.10 Layering: Music

In music recording, an ensemble often has a variety of instruments playing at once. Their blend is important to the music's structure but not to the extent that violins become indistinguishable from cellos, or the brass drowns out the woodwinds, or a screaming electric guitar makes it difficult to hear the vocalist. Layering also affects blend positioning the voicing's front-to-rear, side-to-side, or (with surround sound) front-to-back (or back-side).

For example, in an ensemble with, say, a vocalist, lead and rhythm guitars, keyboard, and drums, one approach to layering in stereo could place the vocalist in front of the accompanying instruments, the guitars behind and somewhat to the vocalist's left and right, the keyboard behind the guitars panned left to right, and the drums behind the keyboard panned left to right of center.

With an orchestra in surround, the frontal layering would position the ensemble as it usually is: front-to-rear and left-to-right, violins left to center and right to center; basses right, behind the violins; and so on. Ambience would be layered in the surround channels to add the necessary acoustic life to the sound and to define the size of the space.

A jazz ensemble with piano, bass, and drums might be layered in surround to place the listener as part of the group. One approach could be to position the piano in the middle of the surround space, the bass toward the front, and the drums across the rear.

With music, however the voicing's are layered, it is fundamental that the sounds coalesce. If the blend is lacking, even well-done layering will not produce an aesthetically satisfying sound.

6.10.1 Perspective

In layering, some sounds are more important than others; the predominant one usually establishes the focus or point of view. In a commercial the announcer's voice is usually louder than any accompanying music or SFX because the main message is likely to be in the copy. In an auto-racing scene, with the sounds of speeding cars, a cheering crowd, and dramatic music defining the excitement, the dominating sound of the cars focuses on the race. The crowd and the music may be in the middle-ground or background, with the music under to provide the dramatic support. To establish the overall dramatic excitement of the event, the music may convey that point of view best, in which case the speeding cars and the cheering crowd might be layered under the music as supporting elements.

In music recording, it is obvious that a vocalist should stand out from the accompaniment or that an ensemble should not overwhelm a solo instrument. When an ensemble plays all at once, there are foreground instruments like, lead guitar in a rock group, violins in an orchestra, or a piano in a jazz trio and background instruments like rhythm guitar, bass, woodwinds, and drums.

Whatever the combination of effects, establishing the main and supporting sounds is fundamental to a good mix, indeed, to good dramatic technique and musical balances. Foreground does not mean much without background.

6.11 METERING

Metering is important to help identify and avoid sonic problems. It is useful to reinforce their value in relation to mixing. In producing audio our ears should always be the final arbiters. There are instances, however, when a problem may be evident but its cause is difficult to identify. In such cases the ear may be better served by the eye.

Metering tools can perform many different types of analyses and are readily available in stand-alone models and plug-ins. They can display, in real time, waveforms, spectrograms, and scopes with attendant alphanumeric information and keep a history of an event. The array of metering programs available can deal with just about any problem be it loudness, distortion threshold, frequency, signal and inter channel phasing, monitoring anomalies, stereo and surround-sound imaging and balances, transfer function, and signal correlation, to name a few.

Keep in mind that meters are not intuitive about sound. Rely on the information they provide but do not be seduced by it, especially when an aesthetic value is involved. That said, when dealing with program materials for the various broadcasting networks and studios, remember that unless those materials match the networks' and studios' established metering specifications they will be rejected. Therefore, the sound mixer should be aware of and conform to those standards.

6.12 Mixing And Editing

It is worthwhile to note that the boundary between editing and mixing is blurring. Today's technology allows sound mixers to cross over into the editorial realm and vice versa.

So long as it does not conflict with union regulations, the decision an editor makes may also involve some mixing, and a mixing procedure may also require some editing. For example, in editing two tracks of, say, dialogue or music for continuity or timing, it may also make sense to use signal processing at that stage to achieve a blend or to more precisely contour a sound effect in a mix may involve rebuilding it for proper impact or to sync tracks may require using an alignment plug-in. When unions are involved, however, be clear about the guidelines defining what an editor and a mixer may and may not do.

6.13 Self-Check Questions

Write your answers in the space provided below:

Check your answers against those given at the end of the lesson.

1 Explain the difference between cross fade and soft cut.

_____

_____

2 List the four essentials objectives to keep in mind while combining sounds

_____

_____

6.14 Summary

Sound editing, missing and blending is one of the important components of a radio production and certainly requires attention. These processes must be therefore understood and most appropriate tools should be used to enhance the quality of sound. Sound mixing or audio mixing is an integral process for combining multiple sounds into one or more channels. The process involves manipulation or enhancement of sound source's volume level, dynamics, content, frequency etc in order to make the production appealing to the listeners.

6.15 Glossary

Ad-libbing - Words, music, or actions uttered, performed, or carried out extemporaneously in one's own words, without a given script.

Balance - The relative volume levels of different voices, music, and sound. The physical arrangement of musicians so as to produce desired volume and blending. A desired relationship in the perspective and quality of unites of a program.

Blend - Merging of complementary sound elements.

Crossfade - The control board operator uses this technique — mixing sound between two sources by fading one down while at the same time raising the volume of the second source. As the second source becomes prominent, the first source is faded away entirely.

Cue – A signal to begin and go on with talking, introducing records, etc.

DAT – Digital Audio Tape, used in digital systems.

Decibel – The unit that measures the volume of sound.

DME- Acronym used for Dialogue, Music and Sound Effects.

DSP- Digital signal processing

Dub – To make a copy of a tape or an audio or TV segment or a commercial.

Fade In…. The gradual increase in level of sound, music or speech as regulated in the control room by the engineer.

Jingle – A programming element such as an anthem or musical song produced by professional studio singers for commercials or radio station promotional announcements.

Log – The written record of what transpires at the radio station, including: music, commercial content and transmitting specifications. A music log is a list of the songs played for the day, a commercial log shows which commercials were played and when and an engineering log show the status of a transmitter's specifications during the course of a day.

Mixing – Used in sound recording, audio editing, and sound systems, mixing balances the relative volume, frequency, and dynamical content of a number of sound sources for the different musical instruments in a band or vocalists, the sections of an orchestra, announcers and journalists, crowd noises, etc.

Montage….A special effect in which brief scenes or sounds and music are linked together. A succession of sounds or voices often overlapping or fading into each other.

Multicasting/multiplexing – The practice by which TV stations split a single digital signal into six or more different regular channels. TV stations generate increased revenue by using some channels for all of video transmission, voice mail, paging, data transmission and Internet service.

NLE- Non Linear Editing is a form of offline editing for both audio and video production using specialized software. During non- linear editing the original content is not modified.

Pacing…. Achieving a feeling of motion by careful attention to the inherent dynamics of the script. Vitalizing a script through the rhythmic use of pauses, emphasis, changes in tempo and emotional tension.

Pitch – The actual tone or sound of one's voice.

Podcast – An audio file in a concise form, like an .mp3, created in the form of a radio show with a way to subscribe to it so it is automatically downloaded and delivered to a personal audio device, such as an iPod.

Promo – An announcement, live or pre-recorded, promoting upcoming events or the radio station's image, promotes the results of a past event or promotes any other event which benefits a station's activities.

PSA – Another term for Public Service Announcement, a free non-profit organization or business spot announcement. These are announcements providing advice on an issue of importance, such as alcohol related campaigns like, "Friends Don't Let Friends Drive Drunk."

Queue – a number of cuts or commercials that are waiting to be played back in a specific, predetermined manner as in a station break.

Segue (Pronounced seg-way) – moving from one musical selection to another without any announcing or interruption. A musical transition from one mood to another without a break. Not to be confused with cross fade.

SFX- SFX is the abbreviation for Special Effects which are illusions used to stimulate the imagined events.

Streaming – The act of turning audio into digital data and transmitting it over the Internet.

6.16 References

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Hoeg, W., & Lauterbach, T. (2003). *Digital Audio Broadcasting Principles and Applications of Digital Radio.* West Sussex, England: Wiley.

McLeish, R. (2005). *Radio Production.* Oxford: Focal Press.

6.17 Further Readings

1. Mixing Audi Concepts, Practices and Tools by Roey Izhaki
2. Mixing, Recording and Production Techniques of the Pros by Rick Clark.

6.18 Model Questions

- What do you understand by Transition? Explain various types of transitions in nonlinear editing.
- Explain in detail the process of sound editing.
- Discuss general guidelines for sound editing.
- What is sound mixing? Detail the purposes of sound mixing.
- Differentiate between sound mixing and sound layering.

Lesson - 7

BASICS OF PROGRAMME EDITING

STRUCTURE

7.0 Objective

After going through this lesson, you should be able to:

- Explain the concept of Video editing;
- Describe various types of editing set ups;
- Use knowledge about various editing methods;
- Describe the need of planning in video editing
- Explain the techniques used in video editing and
- Use various kinds of transitions in video editing.

7.1 Introduction

In previous lessons, we have discussed the basics of TV script writing and writing for different Television programmes. We have also acquainted ourselves with the basic of shots, camera movements and different camera angles for shot compositions. After going through these lessons, we are sure, you must written scripts for one or more TV programmes and even done the recordings for the same. Next step in video production is to re-arrange the recorded material as per the written script. *The process of re-arranging the shots is generally termed as Editing of the programme or Video Editing.*

Editing seems to be the last step in the production of a TV programme, but it actually starts in the mind of script writer when he/she writes the script of the programme. The Director when shoots for the programme, takes care of the editing techniques and transitions Which are going to be used at the editing table.

Since the inception of video recording, there has been tremendous change in video recording formats and also in video editing formats. Not going into details of these formats, we will be discussing in this lesson basic technology used in these formats. We will also give an overview of various editing methods & techniques used in video editing of a TV programme.

7.2 What is Video Editing?

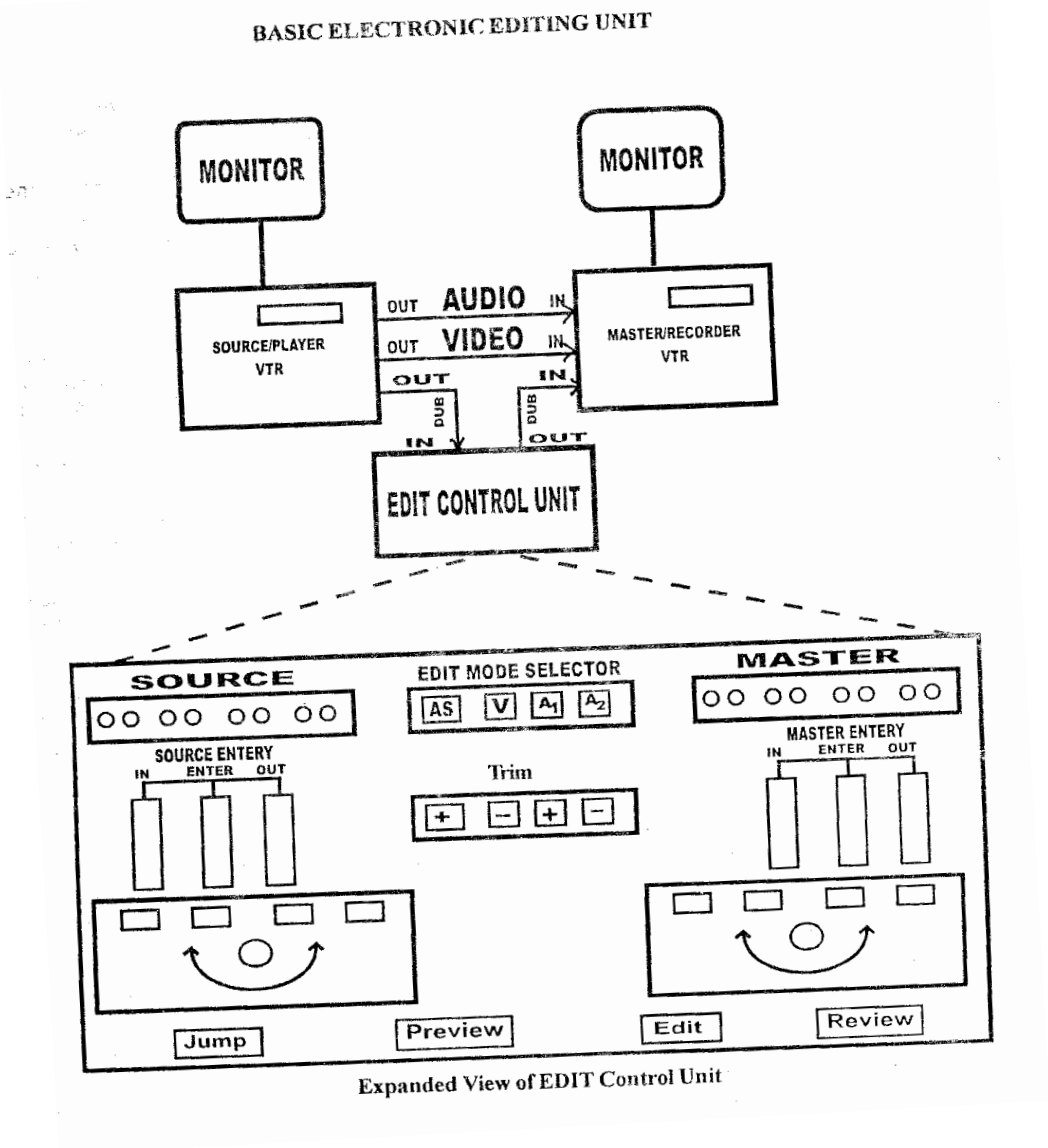
Video Editing is the final step in the post-production process of a television programme. It shapes the look, pace and feels of the programme. It links the individual shot and segment electronically in the most appropriate way to selecting the best shots, and the best part of the best shots and to organize and manipulate them in meaningful manner. The process of editing is to select and edit each shot to its appropriate length while maintaining its proper pacing and impact within the scene. How these shots are edited creates the rhythm within scene and also determines the overall feel of the programme. Video editing carries two functions simultaneously. One is engineering and other is production. The engineering involves the cutting of the programme material to the right length and with relevant content. The production part involves the cutting of programme material in the most presentable and effective way.

Thus, we see that editing is the mixture of technique and art. It is not just putting pictures together but it requires skill to execute the technique and use creativity to enhance

the quality of the programme.

7.3 Some background of 'Video Editing Technology'

As soon as television production began it became apparent that some means of storing the video for a delayed playback was essentials. Many attempts were made to develop an electronic method of recording video, but it was Ampex Corporation who unveiled its Ist commercial VTR in 1956. Initially this VTR was used in live broadcasting. This means that the programme was recorded as it was live, the only difference being that instead of broadcasting the programme immediately, it was recorded on tape for later broadcast. In 1958 Ampex developed a video tape splicing block and soon several other companies also followed it. Thus, professional video tape editing was born.



Expanded View of EDIT Control Unit

7.3.1 Physical Editing:

In this, videotape is sliced and spliced together exactly as if it were film or magnetic sounds track. Videotape must be spliced by cutting precisely in between the invisible electronic video frames on the tape, otherwise, picture will tear and breakup during the playback. This type of mechanical editing is time consuming and inaccurate. Also in physical cutting of the master tape is always a dangerous procedure. Mechanical editing is never used today except in an emergency or under very rare circumstances.

7.3.2 Electronic Editing:

Electronic editing appeared in the market in the early 1960s. It is a transfer process in which the tape or tapes having the original shots and scenes are played back on the VTR (generally called as PLAYBACK OR SOURCE VTR) and sound and picture are recorded in the desired manner on a second VTR (generally called the RECORD OR EDIT VTR). In this way, any number of shots and scenes can be assembled on EDIT VTR tape.

7.3.2.1 Understanding the Editing setup

In an editing setup, there are only two VTRs, *PLAYBACK* VTR & *EDIT VTR.* The operation of both of the VTRs is electronically controlled with an editing control device is known as REMOTE CONTROL UNIT. This unit also enables us to control the edit points precisely on playback and edit tapes.

The edit control device operates by counting TV frames using the Control track (CT) pulses, which are on both the playback and record VTR tapes as each frame is counted, a series of numbers will appear on a read out device on the edit controller console to tell its precise position on the tape.

There are a variety of edit control devices which are used to interface the playback and record VTR's and control their operation. While each edit controller console has slightly different features they all work basically in a set manner.

1. Find the 'edit in' point (a *precise frame where the edit is to occur)* on the *RECORD VTR.*
2. Find the 'edit in' point *(the frame where the new material is to occur)* on the *PLAYBACK VTR.*
3. After determining your edit points, press the cue button which automatically back rolls both the VTRs the same distance to synchronize precisely their pre-edit roll time.
4. Now, if you wish to rehearse, press the preview button. In this case, edit controller rolls both the VTRs and electronically transfer the video and audio signals on the record VTR's monitor to show you exactly how the edit will appear without actually making the edit on the tape. And if you are not satisfied with the edit points, you can change the edit points unless you are satisfied with your edit points.
5. When you have satisfied with your preview edit, press the cue button for actual edit and then press the edit button. Both VTRs will synchronize each other and then to the actual edit as you desired.

7.3.2.2 An Ideal Editing Suite

Till now you have experienced the operation of a basic cut-to-cut editing unit. But usually a editing suite is also equipped with several playback VTR's, a switcher for video effects and mixing an audio mixer to improve the sound and to mix different audio tracks, wave from monitor and vectorscope to check the quality of video, time base corrector to synchronise the video from different VTRs character and graphic generator and a number of monitors with other optional equipments that a client may ask for editing his or her programme.

7.4 Planning of Editing

Editing is seen as the final stage of the production process, infect, it should be the first consideration. Careful planning is a fundamental part of editing and must be done when writing the program script.

Post-Production/editing has become such an important part of video film making that if you do not do your planning you can spend hours and hours wallowing around in an edit suite sorting things out. More time you spend on working out how something can be done, the more accurate your budgeting will be. The less time you spend, the greater the risk.

To save many hours, at the editing stage, it is worth planning at the shooting stage, by using a field log sheet. If a log sheet could not prepare at the time of shooting it should be prepared before going to an editing suite. A cost effective method which saves the video tape and head wear is to 'offline' or copy it on a VHS tape and log it that way. When logging on a U-Matic, it is advisable to copy on to another used tape.

The log sheet, also called a spot sheet or shot sheet, lists shots by hours, minutes, seconds and frames, along with title of each shot and notes for editing. In a log sheet, use the 'IN' and 'OUT' times of the shot with your comments about the cut.

To save the time at the editing table, an editor must be provided with a well written and explained log sheet. The editor must know about the dialogue, whether scripted or unscripted.

LOG SHEET

Programme _____ Cassette No. _____

Producer _____ Date _____

Scene/Shot No.	Take No.	NG or OK	From			To			Remarks
			Hr.	Min.	Sec.	Hr.	Min.	Sec.	
5	1	NG	00	00	40	00	01	20	Camera Shaky
	2	NG	00	01	40	00	02	25	Mic. comes in
	3	OK	00	02	50	00	03	38	Ends on LS
7	1	OK	00	04	05	00	04	40	

8	1	NG	00	04	55	00	05	50	Emergency exit only
	2	OK	00	00	10	00	07	02	CU also possible

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Asst.Director

7.5 Editing Methods

Editing can be carried out in different modes:

a) Assemble/Insert Editing

b) A/B roll editing

c) On-line/off-line editing.

7.5.1 Assemble Editing

Assemble editing is adding selected portion of a programme sequentially onto a blank master tape. In assemble editing, all the signals---**Video, audio, control track (V, A1 & A2 and CTL)** are simultaneously recorded on the recorder's tape, erasing all of the pre-recorded signals. A certain duration of CTL should be recorded prior to the first editing point for synchronization, if a virgin tape is being used.

The assemble mode has the advantage that any tape (new or used) can be used but the disadvantage that the system erases all previous material, hence it is in practice to record audio and video separately. In this method, editing starts at the beginning and move to the end if you wish to add something in the middle of a programme, you can't because you will introduce a new control track and cause the tape to go out of sync. at the end of the new assemble edit.

Insert Editing

This editing mode allows portions of a programme to be inserted into the recorder's master tape.

Insert editing requires that you lay down a control track by either having assemble edited a portion of your programme already or pre-recorded a continuous signal on the final record tape before beginning the editing process. You can execute an independent insertion of Video, Audio CH1, Audio CH2 or any combination of all of these under this mode.

The insert mode should be used in the following cases:

To perform replacements and modifications of a programme on an already recorded/assemble edited tape to add music, narration, and/or video, signals to the already recorded tape.

7.5.2 A/B Roll Editing

Basically the recorder VTR will accept signals from one audio/video source in one edit. But, you can utilize two VTRs as player and one VTR as recorder, thus using a total of three VTRs in your editing with the help of an advance editor.

Controller and a Switcher

When the VTRs audio/video signals are properly driven into the audio/video switcher,

the switcher will change over the signals of two players VTRs and distribute them as one source to the recorder. In this way you can record a sequence of audio/video signals from the two player VTRs in one edit. The Editor Controller takes care of backspacing of VTRs as well as controlling the switcher as it dissolves or wipes or gives other special effects when the transition from one player VTR to 2nd player VTR is taking place. A special effect sequence will surely add flavour and impact to your production.

To perform A/B roll edit

1. The players and recorder VTRs all get backspaced.
2. All three play together up to the Edit-in point. Meanwhile the switcher and the Editor-controller have been arranged so that only the A tape (player one) can feed its signal to the recorder VTR
3. The first edit is a standard cut and the recorder VTR records the signals of player one.
4. At the desired point, the editor/Controller tells the switcher to give the desired effect from player one VTR's tape to player two VTR's tape.

7.5.3 On-line/Off-line Editing

The advent of relatively cheap editing equipment has made it possible to view and plan your video edits in advance, You can now do your editing at a more leisurely pace using cheaper, simple equipments such as low band U-matic or VHS, by making, 'working copies', from the original tapes which also contains video, audio tracks & time code transferred from the original.

Here you practice various scenes to see how they fit together and make a simulation of what the final tape should be. This pre-edit on the cassette is known as off-line edit. You may show your this rough cut to your boss or client for approval (or modification). And when you are satisfied you can do your editing on the high quality editing machines using the off-line edited cassette as a model.

Editing, which is done on the expensive equipment, the computerized controllers and the 1-inch, Betacam VTRs is called ON-LINE editing. It is the editing of the final master using the best of equipment and the result (and process) is called a fine-cut or fine-edit.

Advantages of off-line editing

It gives you time (on relatively cheap machines) which you couldn't afford on the high-quality tape-editing machines (which work out very expensive indeed). And it gives you the chance to have second and third, and fourth thoughts about the best way to use your shots.

Creative edit decisions can be made in a quite & pressure free environment. The simple and easy to operate machines let non-technical people operate them, eliminating expensive technician/editor time & giving creative people more 'hands-on' control.

Expensive on-line VTRs can be more efficiently used for production and playback since long edit sessions are planned first on less expensive machines.

7.6 Non-linear Editing/Random Access Editing

The future of video lies in computer technology and non-linear editing. Unlike the VCRs & editing controllers, computers make the editing process simple and flexible. In linear editing, everything happens on videotape. To get from one place to another on a tape, you have to shuttle over the tape. And hence you have to spend much time waiting for tapes to cue.

Linear editing is also not flexile. You can't easily build a programme out of sequence or in separate 'chunks' on a linear editing system. If you want to this you have to edit these chunks/sequences on a separate tape and then dub each one on a master tape. In this process you loss a generation.

Also after finishing editing if you want to change part of a programme, it is very difficult in linear editing mode. The only way to change a previously made edit is to perform a new edit on top of the old one. If the scene you want to add is longer than you are replacing, you will have to cover up some portion of next scene. Similarly if it is shorter, you will have a portion left of the old shot still in the programme. Suppose you have edited a video programme and with a request from the sponsor or producer you have to expand or compress it in the middle. Normally this will require re-editing of all the segments onto the record unit tape.

What is the solution? Either make the new edit fit, or rebuild the show from that edit to the end. Neither of these options is pleasant. Instead of building a programme in sequence one shot at a time Non-linear editing systems let you work on any part of a programme at any time. Changes first take a few mouse clicks with a non-linear system.

Non-linear/Random Access editing system uses the digital editing technology, in which the editor store all the information's (audio as well as video) in a computer memory and select the shots in a non-linear manner. The editor can retrieve audio and / or video instantaneously. Instead of waiting for a tape shuttle any shot or sequence can be accessed immediately. Shots can be moved here or there with re-editing the entire programme. This eliminates the 'linear' effect of editing. As a result adding a segment to the middle is as easy as adding a paragraph to the middle of a term paper using a word processor.

Non-linear editing suite differs from the traditional editing suite. Usually it uses a computer with a single playback VTR meant to input video into the computer. This system is extremely flexible & user friendly and foster creativity with a number of visual effects.

A computer for non-linear editing system usually have a video capture card for capturing analog video or a firewire connection for capturing digital video from a digital video camera (Video capture cards use hardware and/or software compression (CODEC) to digitize the video on to your hard drive) and a video editing software. There are so many competing editing software available in the market from free to very high range includes: Pinnacle, Dazzle, Canopus; Matrox, Avid, Adobe, Apple, Velocity etc. Many non-linear editing software packages let you transform digital video using effects identical to many broadcast linear systems.

Nowadays, minimum requirement for a NLE system is: CPU- Intel core i5-4590 with 3.3GHZ processor, Memory of 16GB DDR3-1600, video drive of 2TB with system Drive 128

SSD, GPU- NVIDIA GeForce GTX 750 Ti 2GB, on board Audio and a good video capture card with editing software.

7.7 Steps involved during Non-Linear Editing Process

The non-linear editing process consists of mainly four steps:

1 Importing audio and video elements into a computer and saving them in the digital format;

2 Arranging, deleting, and trimming audio and video elements;

3 Adding transitions, effects, graphics and sound;

4 Mastering and delivery of final project

Let's look at each step in a bit more detail

1 Importing audio and video elements into a computer and saving them in the digital format:

First step in non-linear editing process is to import, capture, or digitize all audio-video elements including video footage from camcorder, still images, music, narration and saving these in digital format in to a computer editing system. When the desired sequence has been imported, an icon appears in an area of monitor display called the "clip bins" for the user to access during the editing process. This process is repeated until all the elements have been imported and saved into the computer system. The 'clip bins" are basically folders and should be labeled for editing purpose.

2 Arranging, deleting, and trimming audio and video elements:

Once all the audio-video elements are acquired and organised in 'clip bins', the editing process can begin. The icon representing each clip is inserted into a timeline (where you do your editing work) on the screen using a "click, drag, and drop" process. In the timeline you'll have access to a few tools, but you'll mainly use an arrow toll for picking up stuff and moving it around on the timeline and a razor (blade) tool for making cuts. Clips can be re-arranged in any order, previewed, and then re-arranged if desired.

Audio-video clips can be trimmed to make them shorter. Clips can also be split in to two or more separate clips. This step will be followed with your all audio-video elements to complete the project as per given script.

3 Adding transitions, effects, graphics and sound:

Every editing system has a variety of filter and transition affects you can apply to your footage. These are things like cropping, rotating, distorting, and more. Filter effects allows you to manipulate your video in various ways and transition effects allow you to transition your video in various ways. The main difference is that filters apply to an entire video clip and transition is a means of pleasantly transitioning between two clips.

Transitions: Transition refers to the way we move from one video clip to another clip. For example, CUT is a transition where one shot appears instantly after the

previous shot. CUT is used when no dramatic impact or emotion is desired. A CUT reflects real life and uses no time at all on your video project.

Dissolve is another transition, in which one shot fades out as the second one fades in. Dissolve can happen very quickly or very slowly by adjusting the speed. A dissolve- either slow or fast- give the viewer a sense of change of time and place.

Graphics: To add titles or credits to your project every editing system provides a number of fonts and animation option. If you have planned to insert a graphic over a video, then you should shoot your raw footage accordingly i.e., leaving the space left for graphic purpose.

Rendering: Rendering is the process by which the non-linear editing system actually creates the transitions, effects or title that you decide to use. Non-linear editing system compresses the audio and video elements to save hard drive space. When you select a transition between two shots, the computer decompresses the last few seconds of first shot and the first few seconds of the second shot. Rewrite those segments using transition, and compresses the new file. Rendering speed depends on the computer system and the software being used.

Sound: Non-linear editing system allows you to add two or three tracks of sound to your project in addition to the sound embedded to the original video. You might use these tracks to add music/sound effects/narration etc. Like video filters or effects, mostly non-linear editing system include audio filter also. You can use these for creating effects, such as echo, or artificial room reverberation.

4 Mastering and delivery of final project:

Non-linear editing system gives you the ability to export your finished project as a file that can be played on a computer, burned onto a CD-ROM, emailed, or uploaded on to a website. Once you have saved your project as a finished movie, you will not be able to make changes. You can, however, reopen your project file, make additions or changes and then save the project again as a finished movie.

7.8 Techniques used In Editing

To take right creative decisions, the editor must have knowledge of camera shots, camera angles and the principles of pacing and continuity of program.

The editor selects the shots from the raw footage. Camera shots are categorized by the size of the subject in relation to the total area included in the shot. Each type of shot communicates a different message to the viewers. For example, extreme wide shot (EWS) is used at the beginning of a scene or a sequence to establish that scene or sequence. And close up (CU) shot is used to highlight a particular portion or facial expression of a person.

Similarly, different camera angles communicates different message to the viewers. High angle shot gives viewers a sense of power and command over the scene authoritative, dignified, threatening and more imposing.

7.8.1 Continuity Cutting

After having knowledge through the various shots and angles, the editor must learn to assemble the shots so that the story can be told in a continuous, uninterrupted manner

without any noticeable distraction to the viewers.

The first requirement of smooth cutting is that the background visuals and principal character movements should flow logically along with the consecutive shots in a scene. For example, if a man picks up a cup with his right hand in a wide shot, viewers expect the cup to stay in his right hand in medium shot. There should also not be a drastic change in lighting, primary props, hair style etc.

7.8.2 Screen Direction

Once screen direction is establish it must be maintained throughout the sequence of shots in that particular scene and if it becomes necessary to change the direction in a particular sequence, a neutral direction shot (frontal shot) should be used to bridge between the two shots of different direction. To maintain the direction, the other visual padding such as cut away/cut-in shots, reaction shots can also be used in between the shots.

7.8.3 Screen Position

It is also important to maintain the screen position of the performers in consecutive shots. Normally it is taken to be care of at the time of production, during the composition of the shots, but the editor must also take care of it.

In safer side, the editor should use the consecutive shots showing the same performer from the different angles.

7.8.4 Matching Action

There should also be matching of the actions of the character through the consecutive shots. He should avoid the duplication of the actions. He should take care of the performer's expression, gestures and appearance during editing. Apart from screen direction, screen position and matching action, the editor should take into consideration of the following continuity problems.

Technical Continuity	Inter shots should match with similar colours, brightness, light direction and perspective
Pictorial Continuity	Atmospheric effects should also be consistent.(e.g. weather conditions-Raining-in one shot and Dry in other shot)
Physical Continuity	Appearance of the people and the scene (e.g. clothing, hair style, props etc.)
Time Continuity	Change of time in a scene-check how Clocks, cigarettes, foot etc. change.
Attention Continuity	In between the related shots, the centre of interest should exist.
Audio-Continuity	Maintain the audio volume, reverberation, background noise, presence etc. according to the scene.

7.8.5 Pace and Timing

Through the careful use of pacing within a shot, a scene and the entire programme, an editor can create tension, laughter, relaxation, arousal or anger in the viewers. A programme's pacing can be controlled in several ways. The first and most obvious is length of each cut. An edit can have extra time on the 'IN' and 'OUT' portion.

Another method of controlling the pace is with number of cuts. Fast cuts indicate that things are happening quickly.

7.9 Creative Transitions

A programme that has been properly edited should appear not to have been edited at all. Viewing a programme should be an uninterrupted visual experience. The transition between shots must not violet the audience sense of continuity between the scene.

There are three standard transition devices:

a) The Cut

b) The Dissolve and

c) The Fade

7.9.1 The Cut

The cut is an instantaneous change from one image to another cutting from one camera angle to another should be invisible to the audience. An ideal time to cut is when the audience expects it. In all cases, an edit must be motivated. Without motivation, either by concept or a physical action by an object or character, the edit will be jarring and obtrusive. While using a cut transition, following points should be kept in mind.

1. Avoid cutting from a moving camera to a stationary camera. As when a camera takes a movement, it has some purpose and that purpose should be fulfilled.
2. Avoid cutting between similar or near similar shots.
3. Avoid cutting between extreme change in shot size (e.g. over 5:1)
4. Avoid cutting between the extreme angles (shots cutting should be in between 20° to 60°)
5. Take care of screen direction.
6. Take care of screen position.
7. Take care of continuity and matching action.
8. Always cut during the action, neither before the action nor after its completion.
9. Normally cut at the end of a sentence.
10. Priority should be given to the visual continuity rather than the audio e.g. if a performer takes an action in between his sentence, cut on his action rather he finishes his sentence.
11. In musical programme, cut at the end of a musical phrase. The pace for cutting can be determined by the pace of music.
12. Always follow the 180^0 rule e.g. don't cross the imaginary line.

7.9.2 Dissolve

A dissolve is a smooth transition from one image to another. In dissolve, the image of one source is gradually faded out while simultaneously the image of second source is gradually faded in. In other words, in dissolve the editor links two pictures by mixing from one to another. A dissolve effects needs at least two sources and it is performed by switching

the two pictures through the video switcher. Dissolves are used to represent time lapse. A slow dissolve is used to represent long time lapse whereas fast dissolve is used for short time lapse. For example, slow dissolve from a plant to a tree from the first line of the page to the completed page. A dissolve may be used decoratively in music recordings especially if music is continuous without definite phrases.

Never use a dissolve if you can cut in a situation. As a general rule, use dissolve only between sequences or if there is a special reason.

7.9.3 The Fade

A dissolve is used to indicate minor discontinuity in time or places whereas a fade may be used to indicate major discontinuity. Fade-in always indicates a beginning whereas Fade-out/Fade-to-Black indicates completion of one programme or a scene in the programme. A slow fade-in suggests the forming of an idea. A slow fade-out is a peaceful cessation of a action.

7.9.4 Other Types of Transition

In addition to using cut, dissolve and fade as transition there are also some other types of transitions possible. Most of these are possible with the help of special effect generators. Some of these are mosaic, posterisation, solarization, reveal, conceal, freeze, mirror rotation, video compression/expansion, different types of wipes and chroma keying etc.

Apart from the special effect generator, some of the effects can also be created by the camera like focus/defocus, swiss pan etc. All of these effects should be used very carefully and effectively.

7.10 Essential to be a good video Editor:

It is not difficult to learn the pressing of right button for editing, but knowing when to press these buttons requires the experience and creativity.

To become a good video editor, one must study films and film theories and analyse the work of other editors. A good editor should develop a taste, a sense of timings, a feeling for rhythm, poetic and music values, a good memory and endless patience. He must have a professional integrity and commitment to quality. He must also possess a strong technical knowledge with a meticulous eye for details and a style of message delivery that is sensitive to visuals and sound.

7.11 Summary:

It really does make a difference how pictures are edited together. Through a combination of technical and creative skills the editor can save a poorly shot programme and make a good programme even better.

Video technology is constantly changing. New video formats and dazzling effects devices are being introduced almost every year. But none of these advances have altered the overall concept of video editing. The ability to understand these concepts and how they relate to each other is the key to using different types of equipment. A person who knows the basic principles of video tape editing can apply that information to any production or post production challenge.

Understanding the video post-production process is not vital to the editor but also to anyone planning to work in the video or film world.

Before we close this lesson - script, let's look back the steps taken in editing a video programme.

1. View the raw material thoroughly
2. Prepare log sheet
3. Do more indoor/outdoor recordings, if needed
4. Do off-line editing
5. Show it to the expert/authorities/sponsor etc.
6. Incorporate the suggestions
7. Do on-line editing
8. Preview the programme
9. Incorporate the possible suggestions
10. Telecast or distribute.

7.12 Glossary

Bite: A short segment, or a take, such as a 15-second sound bite that is repeated on network radio and TV news programs. The major excerpt from an interview, a very quotable sentence or two, is called the news bite or bite-of-the day

Captioning: The process of superimposing subtitles at the bottom of a TV screen.

Credit: Acknowledgment of work done. Credits may come at the beginning of a program (opening or head credits) or the end (closing or tail credits). A pre-credits sequence starts a film or TV program before the title appears.

Cue: A signal in words or signs that initiates action, dialogue, effects, or other aspects of a production, such as an indication from a director for a performer or interview subject to begin or end. Cues may be given with a cue light, such as an On the Air sign or a warning light, Also, to find a desired spot on an audio or video tape. To cue ahead is to move a tape to the next broadcast or edit point.

In-cue (ic or i.c.): The first few words—generally four –of a taped report or interview, written on a script to help the engineer identify the tape and use it.

Out-cue/End-cue: The last few words—generally four—of a taped report or interview, an important guide to the engineer, producer, director, and newscaster; also called an out-cue.

Cutaway: The use of a shot that is not part of the primary action but which is relevant to it and occurring at the same time. In an interview a cutaway is commonly used to show the interviewer's reaction to what is being said.

Dissolve: The gradual change from one picture to another, allowing the pictures to be superimposed during the transition. Dissolve is an optical technique to produce a

gradual change in scenes. When the images are both at half-strength, they overlap; the effect is called a

Fade: The gradual change from one picture or sound source to another. Usually to or from black (video) or silence (audio).

Point of view: A camera shot seen from or obtained from the position of a performer so that a viewer sees what the performer is seeing.

Segue: To make a transition from one action, scene, or musical selection directly to another without interruption; pronounced SEG-way, from the Italian sequire, "to follow."

Set: The part of the television studio, seen on TV, in which the anchors sit.

Supers: names or other bit of information superimposed on the TV screen. The names at the bottom of the TV screen that identify who is talking.

Voice-over (VO): The sound of an unseen narrator on a TV program or film; a reading by a TV announcer while a videotape is shown. The TV voice-over story, in the reporter's voice heard during the video (picture) portion of the story.

7.13 Further Readings

1. Wurzel Allan, TV production, McGraw Hill.
2. Gerald Millerson, The technique of TV production, focal press London & Boostan.
3. Anderson, Gary H. Video editing and post-production knowledge Industry publication N. York.
4. Peter Utz, Todays Video, Prentic-Hall, New Jersey.
5. Carl Hausman & Phillip J. Palombo, modern Video Production, Harper Collins College Publishers.

7.14 Model Questions:

1. Describe the role and importance of a video editor in a video programme production.
2. After completing the production process, what steps will you take while editing a video programme?
3. Describe the various video editing methods. Also explain why insert editing is preferred as compared to assemble editing.
4. Describe the steps in the operating of a basic electronic editing setup.
5. What is a log sheet? Why is it so important?

Lesson 7

BASIC PROCESS OF PROGRAMME PRODUCTION: PRE-PRODUCTION, PRODUCTION & POST-PRODUCTION

Structure

8.0 Objectives

After reading this lesson you will be able to:

- enlist the various stages of programme production
- explain each of these stages
- develop a comprehensive understanding of these stages
- evaluate the relative importance of each stage in the programme production
- initiate programme production on a small scale

8.1 Introduction

Generally, it has been found that the actual production of a programme or show may take much lesser time, possibly only in minutes. However, the actual production comprises a small proportion in the overall production. Before entering the threshold of a studio or a control room, the programme must be subjected to the process of careful planning and preparation. This requires a very methodical and systematic approach to work following various steps, which can be divided into three distinct stages:

I. Pre-production Stage

II. Production Stage

III. Post-Production Stage

But do you think that every programme production has to go through each of these stages? Well, every production does not necessarily require work in each stage. Also, every production does not need to lay equal emphasis on each of these stages of programme production. Take the example of a live, daily news programme. Perhaps it necessitates little set up and rehearsal and no post production. On the other hand, if it is a drama-related programme, it will require going through all the stages before the final output is fit for viewership.

Therefore, while the live programmes such as sports events, news events, special functions do not need any complex post-production treatment as they are telecast directly from the location of the event, the programmes dependent on fictional content require to go through all the stages of programme production. There are also live-on-tape programmes which also do not require post production work, but are recorded live on tape and telecast at a later stage. However, both 'live' and 'live-on-tape' programmes require a lot of pre-production planning.

8.2 Pre-production Stage

The preproduction planning for a programme may begin days, weeks, or even months before the actual production. It starts with creating of ideas and comprises various activities which aim at making all the plans and arrangements for TV production

8.2 .1 Creating Ideas

When it comes to a TV project/production, a good story is always its foundation. For instance, if the project is related to a dramatic series, you must have a good story to build on, which will have a main plot and several sub-plots. These plots can be divided into episodes, with each episode helping in taking the story forward. Similar, if you are asked to produce a sports related series, say on the evolution of Indian cricket, you must have a story, this time based on rigorous research. Here also you have to build a story based on facts of course. So whatever genre your project may belong to, there has to be a good story to build on at the time of production and post-production. In other words, irrespective of the genre of your production, you are always telling a story. The audience loves to watch stories unfolding before them. A documentary on Sachin Tendulkar is a story based on facts related to Sachin's life. 'Bhabhiji Ghar Mein Hein' is also a story, but is a fiction. People love stories told in words or in images.

But now the question arises, where are we to get ideas and stories from? Ideas and stories come from just about anywhere. TV producers keep themselves updated with all the TV productions--- the kind of TV shows/programs that are being shown and the ones that are gaining popularity. Producers watch TV regularly, read publications and trade magazines, browse the Internet and do a host of other things to be fully aware of what is happening in their industry.

Then, if you are thinking of a TV project, your own creativity can work for you in generating ideas for stories. Our imagination works all the time towards the end of weaving stories. Every day experiences also serve as ideas for stories.

Brainstorming is also an effective way to generate ideas. Brainstorming works the best when it is done with groups of 8-12 people and within a timeframe. The environment for brainstorming should be one in which people are relaxed and can share jokes as well. This will allow their creative minds to work together towards generating story ideas.

In fact, ideas can come from anywhere. It can be family, friends and even strangers who become the source of an idea. All you need is to engage in communication. The more you communicate with people around you, the more likely it is to get ideas for your project. A visit to an archive where old journals, history books, etc are present can provide with interesting ideas which can be given the shape of a TV production. You can also visit book

fairs where books on a variety of subjects are available. They can be source of ideas for your TV project.

Surfing the Internet can also take us through websites which can give use ideas as well. However, whatever ideas we may generate or adopt, it should be kept in mind that the idea we are interesting in should be a doable one. Often a young producer, with very little experience in TV production, may get carried away with a story idea which may look brilliant but may not be doable. Both human and non-human factors come into play while deciding whether an idea can be translated into a TV project/production. There evaluating an idea is generally regarded as the most important step in the preproduction process.

Once the idea has been evaluated and a go-ahead decision has been made then it is time for the project to move forward. A few steps now become crucial such as preparing a program proposal, a budget, followed by writing the script for the production.

8.2 .2 Program Proposal

A program proposal comprises the program title, objectives, target audience, show format (for example a single TV show, or series), a brief description, production method, and approximate budget. It should begin with an overview of the program proposal that should include the rationale behind the proposed program. It should not go beyond 10 pages in length besides appendices. The chief aim of a project proposal is persuading a supervisor or a prospective customer to accept the proposal.

8.2 .3 Budget

Just like any other busy TV is a profit-oriented industry. The business will run smoothly if the profit margins are calculated beforehand and the prospective clients can be persuaded that the idea is a viable one and once translated into reality, it would fetch profits. This can be done effectively if the producer prepared a budget for all the three main stages of TV production such as pre-production, production and post-production.

8.2 .4 Costs

There are certain costs which would be incurred during the production process. The preproduction costs generally comprise the producer's fee for taking meetings, hiring crews, casting actors or talent, coordinating acts, planning the shooting schedule, booking hotel, meals, and travel, researches, and development costs of the project. The production costs relate to everything required to shoot the project. Post-production costs depend upon hours spent on activities related to editing the footage such as inspecting the footage, logging it, loading it into the editing system and performing the editing.

8.2 .5 Funds & Financing

The producer must get the requisite finance before initiating the production. TV programs need funds. Producers can get funds from private investors such as family and friends. They can approach various Foundations such as private and public for funds. If this is not accessible, the producer can opt for loans from banks as well.

8.2 .6 Script

Television productions are invariably based on scripts, be it fiction-based such as serial or a non-fiction one such as a news bulletin. Scripts give concrete shape to ideas.

Every script, whether for a fiction-based program or a non-fiction one, has a definite format which must be strictly adhered to. In your previous semester, you must have already been made familiar with the format of a script. It is important to note that scripts must also include commercial breaks wherever a program/show has them. A good script is indispensable for a TV production. Scripts are organized based on the genre to which they belong.

8.2 .7 Storyboards

Every TV production does not necessarily require a storyboard, but where it is necessary it must be made. You are, of course, already familiar with storyboards after having made a few in your last semester. Just to sharpen your memory storyboards are simple, cartoon-like sketches of each scene in a script. They come close to the comic strips we used to read in our childhood. Each of the sketches in a storyboard is a rough display of the scene to be shot.

8.2 .8 Planning

After deciding the best approach to production, the producer starts the phase in which communication channels to communicate with all production crew members are clearly spelt out and the coordination efforts begin among all members of the production team. The producer begins his activities related to dealing with such issues as the requests for facilities, scheduling, publicity of project, seeking permissions and rights.

8.2 .9 Hiring Personnel

The producer initiates the process of hiring additional workforce once the script for production is ready. He/she maintains a complete database of candidates offering their services for various production-related jobs. The database includes candidates' names, positions, e-mail addresses, home addresses, business addresses, and various phone, beeper, and fax numbers (Zettl 2009)

8.2 .10 Request for Facilities

Before the actual production can begin a list is prepared and forwarded for the facilities required for production such as production equipment, properties and costumes needed for a production. This list comprises information related to date and time of rehearsals, recording sessions, and on-the-air transmission; names of producer and director; all technical elements, such as cameras, microphones, lights, sets, costumes, makeup, graphics, video recorders, video and audio recording facilities, and other specific production equipment. The list also contains requirement for the studio and control room or the remote locations needed for production to begin. Nowadays an alternative to real locations is provided by virtual locations, which can be created on a computer by computer 3-Dimensional graphics.

8.2 .11 Schedule for Production

The production schedule keeps a record of who is doing what, when, and where in the production process. The producer keeps an eye on the progress of each activity and is well-aware of everyone's position in relation to the stipulated deadlines. The call sheet carries a

list of shot types and the names of those who are in need of being close to the shot. The call sheet is distributed to all the crew members.

8.2 .12 Permissions and Rights

If the idea for the project belongs to someone else and not the producer, he has to obtain permission before beginning to work on the idea in the form of production. Besides, the provisions of the Copyright Act protect the rights of an author or creator and his original work. He/she is granted the right to copy, distribute, and sell the content of his pieces of work.

8.2 .13 Publicity of Project

Producers have to plan for publicity and promotion of their TV project. This can be done through various means such as employing the services of a publicist or participating in festivals and other events. These days, social media are also an important source of publicity.

Self-Assessment Exercise 1

Answer these questions briefly:

(1) What are storyboards for?

(2) Give a list of some of the sources of creative ideas.

(3) How can budgeting help in programme production?

(4) When should a producer seek prior permission?

(5) What are the sources of funding for programme production?

8.3 Production Stage

Before the advent of videotape, all programs were produced live. The show would start at the appointed time and run till the end without offering any chance to pause or correct mistakes. This was the period of broadcasting when some classic stories were produced. The development of video tape has changed this scenario offering far more flexibility in sequencing the production of programme segments. The producer and the director could now correct major problems which could not be corrected earlier.

In simple terms, TV production implies the time for actual shooting. During production the crew members or the production team operate the equipment and the shooting begins. It comprises those activities culminate into video-recording or televising of an event. As stated right at the outset of this lesson, the actual time spent on video-recording an event is short as compared to the time spent on organizing for the shooting. For a programme that is broadcast live, the production stage is the final phase in the production process. Most news programmes, sports coverage, and other such types of immediate programming are produced live. Sometimes a programme may be produced 'live on tape'. It means the programme is produced in real time, as though it were live. But instead of being broadcast during production, the show is recorded on video tape for later broadcast. Tape is essentially used as a storage medium and permits the show to be produced at a more convenient time than the actual broadcast time. Most talk programmes and game shows are produced live on tape.

Since the production stage is the stage of actual shooting, this process involves the following activities:

8.3.1 Camera Operations and Framing

Have you ever held a video camera? If yes, then you must have known that different camera movements have a bearing on the images you shoot. Therefore, a camera operator, besides knowing the functions of each part of the camera, must also know how to wield it. It means the camera operator must have complete knowledge of the need for appropriate camera movement. In other words, camera movements are important because each movement will have an impact on the shooting that is being down.

Figure 1 Camera movements. courtesy Media College (2012, as cited in Molchina, 2012)

8.3.1.1 Camera Movements

There are many camera movements. Some of the more important ones are as follows:

There are times the narrative of the story requires certain pictures which can be obtained through a horizontal movement of the camera from left to right about a central axis. It is known as Pan**.** On the other hand, Tilt is a vertical up or down movement of the camera from a stationary location. This can be done by the operator by holding the camera on his shoulder and moving it up or down.

In Zoom the camera movement is not necessary; it is just the altering of the focal length of the camera lens which provides the impression of movement either towards or away from the camera or the viewer. Pedestal depends upon the subject and it implies the camera movement vertically up and down in relation to the subject. Trucking implies sidewise camera movement in relation to the action. It is generally regarded to be the same as track or dolly. Dolly refers to a cart which moves along tracks. This is done by mounting the camera on the dolly and recording the shot as it moves along the track. At times dolly shots accomplish the job of providing very dramatic footage. Arc implies moving the camera in a slightly curved dolly or truck movement using a mobile camera mount. In this type of shot the camera moves around the subject. A Follow shot is one in which the operator follows the action while holding the camera. It is quite a challenge to keep the camera steady and must be attempted only when it is absolutely essential and the camera operator is

confident of taking a steady shot. However, when this shot is well taken, it gives remarkable pictures. It is generally better, especially for beginners, to use a tripod to mount the camera on before shooting. There are many camera shots that are employed by TV producers. Some of them have been stated as under (Media College, 2012, as cited in Molchina, 2012).

8.3.1.2 Camera Shots

Extreme Wide Shot, as the name indicates, is a wide shot aimed at revealing the surroundings of the subject with whom a video production is being done. The view is shot so far that the subject cannot even be seen clearly in the picture. For instance, when showing the scene of earthquake devastation, an extreme wide shot would reveal the scale of destruction.

Very Wide Shot

As compared to extreme wide shot, very wide shot is quite closer to the subject in the video production. However, even in this type of shot the subject is still much farther than in a wide shot. It means now the subject is just about visible, which is not the case with extreme wide shot. The focus of these shots is to locate the subject in his/her environment.

Wide Shot

In a wide shot the subject occupies the full frame. There is, however, some room both above and below the subject.

Mid Shot

Have you ever conversed with a person face-to-face? How do you see the person then? This is precisely how a mid-shot is taken. It shows some part of the subject in detail.

Medium Close Up

In simple terms, it can be described as half way between a mid-shot and a close up. This shot reveals the face more clearly, without being too close to the subject.

Close Up

In this kind of shot, the subject occupies greater part of the frame. Simply stated, a close up of a person implies a close up of his/her face. The aim is to focus on revealing his/her emotional state so as to leave an impact on the subject.

Extreme Close Up

It is shot to reveal extreme detail. It creates a dramatic scene and is used if the narrative of a story mandates it.

Two Shot

Two Shot is another type which aims to shoot two people as is generally done in interviews, or shows in which two people are interacting.

Over the Shoulder Shot is framed from behind a person who is looking at the subject. This shot is useful in revealing the position of each person, and gives the impression or feeling of looking at one person from the standpoint of another.

8.3.1.3 Camera Framing

Before you start embarking on video shooting, you must familiarize yourself with some rules of framing in photography. Right at the outset pay attention to any horizontal and vertical lines present in the frame. For instance, the skyline, wires, poles, etc can be the guides here.

These horizontal lines, whatever they may be should be level, and the vertical lines should lie in a straight up and down line. Tilted lines should be avoided unless the shoot requires such a framing. Then, follow the rule of thirds, which divides the frame into as many as nine sections. Important elements in the frame should be placed along intersections or lines in a bid to keep interesting parts of the frame located at 1/3 or 2/3 up or across the frame, instead of keeping them in the center.

Figure 2 Rule of Thirds Picture Courtesy: Molchina (2012)

During framing a shot some rooms have to be maintained such as Headroom, looking room, and leading room. There is a need to leave such rooms at the time of framing. For instance, if a man is shot running, there must be some leading room in the frame for it to give the impression that this is the room it will be run into. The viewfinders of the cameras come in handy for this purpose as they show the entire picture of the action as would be shot.

8.3.1.4 Basic Shooting Rules

Zettl in (2009, as cited in Molchina, 2012) has laid down some important points for shooting successfully. He regards it essential that the camera operator should wear headsets to connect with key members of the production team such as the director, technical director and visual operator, especially if the TV project is a large one. Listen carefully to the director's instructions to various members of the crew, particularly to other camera operators. Once the 'On Air' sign is made, it means that the show is on if it is a live one, or video recording has started. Make sure the camera is unlocked at the time of

shooting. Also check for pan and tilt drags. Now it is time to pay attention to the guides for framing. Ensure using the safe area brackets and the screen-center mark on the viewfinder that the action is confined in the 4x3 screen area if it is a 17x9 screen. Keep the zoom focused over the entire area of zoom for each different camera positions. Pay attention to the hairline of a person if you are shooting him/her so as to be able to get a very sharp focus. A camera operator should move around carefully without bumping against other cameras or crew members. Wait for the 'All clear' before winding up that is locking the camera, capping it, and coiling up cables neatly as these will have to be used again very recently.

8.3.2 Lighting

We all watch images on television every day. But have you ever wondered in the making of an image on television, how much contribution lighting makes? In making arrangements for appropriate light or illumination, there are three important things to be taken note of. These are: level, contrast range, and color temperature. As pointed out by Inman & Smith (2007, as cited in Molchina, 2012), lighting levels for television can be made appropriate by proper adjustment of the incident light. Light meters are available that can measure the appropriateness of the incident light.

8.3.2.1 Lighting Instruments

In television two kinds of lights are generally used: spotlight and floodlight. The spotlight constitutes a narrow beam that varies from being a focused flashlight to a softer beam. For studio production, Fresnel spotlight is regarded as the most appropriate.

The second type of spotlight is the ellipsoidal spotlight. This type of spotlight casts intense and sharp light beams. This type of spotlight is mainly used for special effects lighting.

On the other hand, Floodlights are used to produce a highly defused light. They cast minimal amount of shadows and are useful in such situations as news sets and displays of products.

Studio floodlights are categorized into various types such as the scoop floodlight, which uses a rugged scoop like reflector. Another one is the soft and broad light, which is characterized by the production of a highly diffused light. The fluorescent floodlight is another type of floodlight. Unlike other types of floodlights, the fluorescent floodlight does become very hot such as the incandescent light. The strip or cyclorama light is another kind of floodlight employed to light up large areas.

Figure 3. Fresnel

Figure 4 Floodlight Pictures Courtesy: Molchina E (2012)

Courtesy: Molchina E (2012)

8.3.2.2 Lightning Techniques

Besides the types of light such as spotlight and floodlight, another important consideration while lighting is that of lighting techniques. This is owing to the fact that different lighting techniques create different effect on the images, from the point of view of the audience. The three point lighting technique is a popular technique generally used for TV video productions.

Figure 5 Three Point Lighting Picture Courtesy: Molchina E (2012)

Key Light

The first of lights used is more commonly the Key light. These lights are positioned ranging from 30 to 45 degree to the side of the camera. The aim is to 'hit' the subject at nearly 45 degree from vertical. This angle of lighting angle is most appropriate for people having normal features.

Fill Light

The position of Fill light is such that when it is added on the side of the camera, it lies opposite to the Key light. Technically, the intensity of Fill light should be almost half of the Key light and back light. These lights are generally softer in nature and do not cast sharp shadows. Many times, Fill light is used rather than spotlight so as to provide fill. It helps in avoiding harsh reflective lights from falling on a face and eyes.

Back Light

The back light, as the name suggests, is places behind the subject. Its exact position is at the neck of a subject. The back light helps in distinguishing the subject from the background giving a three-dimensional feel to the whole setting.

8.3.3 Audio Recording

Just like the video, audio for a TV production must be paid attention to. In fact, both video and audio must come together in making a composite creation. In this context, Zettl (2009, as cited in Molchina, 2012) says that audio ought to be integrated into the production planning right from the outset and not simply added to it. First, you need to become aware of the sound pickup aspect of the audio system for TV production.

8.3.3.1 Sound Pickup

What does sound pickup imply? It implies conversion of mechanical vibrations into electric oscillations to reproduce mechanically recorded sound (Darkin & Ewbank & Hull 2008, as cited in Molchina, 2012). This is the job of microphones and there are a variety of them. However, the various types of microphones can be divided into three main categories: dynamic, condenser and ribbon.

Dynamic microphones are generally placed close to the sound source and they can withstand high sound levels without damaging the microphone or distorting the sound. Though Condenser microphones are very sensitive to any physical shock, yet they produce much higher quality sound than dynamic microphones, particularly when the source of the sound is far away. Ribbon microphones are known for producing 'rich' sound and are particularly suited to indoor shooting. Now, what about the pickup pattern that we generally hear when microphones are talked about? Like our ears microphones can be thought of as devices that can hear within an area and this is precisely what is meant

by their pickup pattern when the term is used in relation to production.

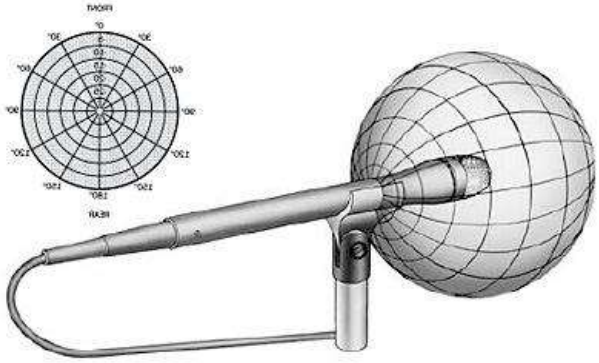

Figure 7 Omnidirectional Courtesy: Molchina E (2012)

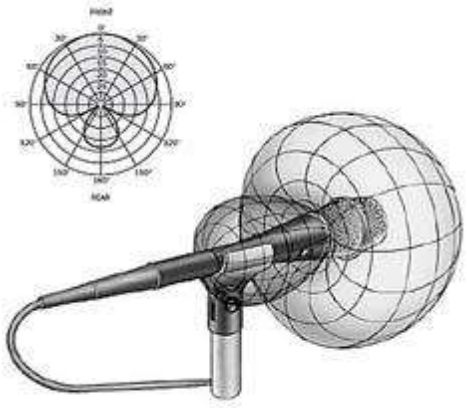

Figure 7 Super cardioid pickup and polar patterns Picture Courtesy: Molchina E (2012)

The omnidirectional, as the name indicates, is a kind of pickup pattern which is like a sphere with the microphone stationed in the center. Sounds occurring within this spherical pattern can be clearly heard by the microphone.

Others like super cardioid, hyper cardioid, and ultra cardioid microphones have pickup patterns which tend to narrow the sound pickup. It is Lavalier microphone which is generally used in TV production, as they a dual advantage of being easy to use and the ability to produce high-quality sound.

Then another device of special mention is the audio console. It is basically a sound mixer that receives inputs from many microphones and combines them into a unified output for the recording purposes. Also, keep in mind that audio-recording systems can be analog or digital. However, modern televisions employ digital audio recording systems.

8.3.4 Video Recording

We all are familiar with videos. But what are their sources? The sources from which videos are obtained can be subdivided into electronically generated sources and optical sources. What are the electronic sources? These are sources which involve all

the standard test signals, character generators, computers, and background generators. As for Optically generated videos, these are produced by television cameras (Inman & Smith 2007, as cited in Molchina, 2012).

Certain things a video recorder must be careful about during video recording. These are: video leader, recording checks, time code, and recordkeeping. Video leader brings the playback and record machines to standard audio and video levels. Time code synchronizes, logs and identifies content in recorded media. The log is maintained by the video-record operator at the time of video shootings. It is helpful at the time of postproduction editing.

8.3.4.1 Electronic Features of Video Recording

There are two ways to deal with videos. Analog and digital recording systems subject their videos to either composite or component signals. A recording system using composite signals will not be compatible with component systems. Among the two systems, recording that is done using a component signal is better than the one using a composite signal (Zettl 2009, as cited in Molchina, 2012). Composite video format is analog in nature and were mainly used in the past recordings. Also, these videos are easier to shoot and broadcast than component ones. But the downside is, these composite videos lack image clarity and are prone to loss of quality very quickly. Whereas component video is better in clarity and does not lose quality even after several generations of use. Betacam, DCT, D1 and D2 are some of its types.

8.3.4.2 Storage System

When it comes to storage systems, there are basically two types: tape-based and tapeless. While Tape-based systems can record analog or digital, tapeless ones can record only digital content. However, tapeless systems have advantages over the tape-based ones. Tapeless systems of information storage have the distinction of storing and archiving vast amounts of data that take up very little space as compared to tape-based ones. Moreover, the retrieval speeds of information from tapeless systems are much faster as compared to tape-based ones (Zettl 2009, as cited in Molchina, 2012).

There is another advantage which tapeless systems have. As has been written by Darkin , Ewbank & Hull (2008), these systems have large storage capacity such as a hard drive has, and therefore, have the edge over the other system in terms of delivering analog and digital video and audio outputs of varied kinds. And about hard drives, you are already aware that they can be part of your computer and laptop. But what you perhaps may not know is that hard drives can also be used to create a big video server. Nowadays, speeds of hard drives are so fast that hours of video and audio content can be retrieved in a matter of seconds or even lesser time.

Technologies like optical disks can record and retrieve vast amounts of data in the blink of an eye. Digital Versatile Disk (DVD) and Blu-ray are some

examples. There is, however, a disadvantage. These devices require careful handling.

Then, there are flash memory devices also known as flash drives and memory cards, which have advantages over both hard drives and optical disks. Unlike both hard drives and optical disks, flash memory devices do not have any moving parts. However, there is a disadvantage as well. As compared to hard drives and optical disks, flash drives have a limited storage capacity, and are also very expensive.

8.3.4.3 Switching or Instantaneous Editing

Video switcher is a key constituent of a video control room, for it does everything which allows for a meaningful and comprehensible viewing by the audience. In simple terms, this device performs the task of selecting pictures from various video sources and creates the output, which is viewed and comprehended by the audience. In doing so, as writes Zettl (2009, as cited in Molchina, 2012), it performs three basic functions--- selecting from among several video inputs an appropriate source; performing basic transitions between two sources of video input, and creation of special effects. The video switcher has some important parts such as program bus, mix buses, preview bus, effect bus, multifunction switcher, additional switcher controls, fader bar. Some important parts are briefly explained below:

Preview bus: As name suggests, the preview bus helps in viewing the source image on the preview monitor so as to ascertain if it needs any adjustments in terms of position, rotation or an effect.

Program bus: Program bus constitutes a row of buttons that helps in sending everything from a preview bus directly to the line-out.

Key: Key here implies inserting an image into a different background picture. Keys and mattes are help in the insertion of one picture into another. There are keys available for various effects. For instance, luminance keys and mattes perform the task of superimposing text or graphics on the screen. Chroma keys help in inserting complex video into the background.

8.3.4.4 The Actual Shooting

Have you ever seen an actual TV shooting? If you have, then you must have noticed a person who may seem to be the boss of the entire proceedings giving instructions to others by shouting aloud all that he/she wants. This person, you must have rightly guessed by now is the director. When the actual shoot begins it is now the director who becomes the pivot around which the shoot revolves. He/she has several important functions to perform. Director instructs talents and the entire crew (production team) all that they need to do throughout the actual production. A Television director wears many hats. He is an artist, a man with sound technical knowledge, a psychologist who can get the best out of the talents, and man adept at coordinating talent and the crew, men and the equipment. As Zettl (2009, as cited in Molchina, 2012) points out

that when the crew is almost on the verge of giving up due to the arising of a perceived challenging technical problem, the director takes over by offering much-needed technical advice on the issue. The director has a vision of how the final picture would look like and he attempts at translating his ideas and vision into reality through others during the actual shooting. After a green signal is obtained that all the equipment, the crew, and the talent are in readiness, the actual shoot begins when the director shouts aloud 'lights, camera, action' and the camera operator and the audio engineer both confirm loudly that it is 'up to speed'. In this respect you must know that there are productions which use a slate, or clapboard held in front of the camera every time it rolls for the purpose of giving such information as the name of the producer and director, the camera in use, the scene number, take number, date, and the title of the project. As is pointed out by Kellison (2005, as cited in Molchina, 2012) sometime productions, instead of using an ordinary slate, use a smart slate, which matches the camera's time code with the audio.

8.3.4.5 Electronic field production (EFP)

It is a television video production done in the field away from the television studio such as a remote location. As suggested by Inman & Smith (2007, as cited in Molchina, 2012), EFP has many advantages, one of which is the opportunity to experiment with scenic and artistic creativity that a studio does not offer, but an outside location does. The availability of nature's sights and sounds and the capturing of an event under natural lights and surroundings make the coverage or even the portrayal of a fictional event very effective and powerful from the point of view of the audience. EFP also at times offers the advantage of saving on crew and equipment as field production as compared to studio productions need fewer crew members and equipment. Moreover, if a production can be done in a field without the need move into a studio, one can save rental costs. However, there is a flipside as well. Field productions do not have the benefit of high quality lighting and audio. These productions are also dependent on favourable weather conditions, which means in the absence of good weather conditions would make it difficult to shoot on scheduled days and times thereby delaying the proceedings. Also the rental costs for the studio and studio scheduling can be avoided. There is another challenge. Since the production is done outside the studio and in the field, these locations would require cooperation from nonproduction people as well, which can be at times difficult to elicit. For instance, the nature of the production may require assistance from the traffic police such as shooting on busy roads in a town or a city. Sometimes permission of local authorities may be needed to shoot in a particular area. Then there is also the issue of transportation and lodging of crew and equipment.

8.3.4.6 Electronic news gathering

One of the most important contributions to news reporting has been made by Electronic news gathering (ENG). In ENG as few as one person with a

camcorder can complete an ENG assignment. ENG offers mobility and flexibility with which an event can be covered (Zettl 2009, as cited in Molchina, 2012). ENG has the facility to video-record an event or transmit it live. With the help of a microwave transmitter ENG vehicles can transmit an event live from a remote location to the station. When it comes to coverage of big events such as sports-related events, the Republic Day Parade, etc, a big remote is done to transmit signal for television. ENGs use very high quality field cameras, several floor ENG/EFP cameras, and a large audio setup. All these elements are controlled from a remote truck, or a mobile control center so as to achieve a high degree of coordinate crucial for TV coverage of events.

Self-Assessment Exercise 2

Answer these questions briefly:

1. What do you mean by 'Rule of Thirds'?
2. Explain the following:
   (a) Spotlight
   (b) Back light
   (c) Key light
   (d) Preview bus
3. How can news be gathered electronically?
4. What is the main function of a video switcher?
5. Distinguish between Dynamic and Condenser microphones?

8.4 Post-Production Stage

Programmes that are produced on videotape so that later on they can be subjected to editing, require post-production phase. This is the time when the director wears the hat of a supervisor and resorts to supervising the tape editing, selecting those takes or segments which are to be included in the final edited version. Post production can be a simple matter of assembling a bunch of completed segments or a highly complex procedure which employs computers to help the director and tape editor combine hundreds of individual shots into the completed programme.

One of the major advantages of post-production is the creative control. It helps the director in the selection of both shots and performances. It is possible to select the very best performance of both cast and crew from a number of different tasks literally building the show by assembling the best scene, shot or crew performer's delivery of a single line. In many instructional or industrial productions, post production permits the addition of visual element, such as graphics, film or tape to produce an even more effective presentation. Additional audio can be added during post production to enhance or modify the existing second track.

Post-production stage is very significant as the success of all the hard work done in previous stages hinges on the performance at this stage. Post-production stage constitutes performing of activities related to editing, adding voice over or music, adding any graphics,

text or additional footage to the film. Therefore, it is a very important stage which can take the longest period of time.

At this stage the first thing is preparation of the footage. This is done by the editor when he/she looks at what they have. It is ensured that the footage is in an appropriate format they can work with at the time of editing.

The next step is to edit the footage. Editing is the process in which the entire footage is cut up and pieced together so as to ensure the audio and video recorded are able to give the requisite information or serve the intended purpose of the production.

In the final step of the post production stage, the edited footage is prepared for distribution. This can be done through authoring and duplication of programme content on a DVD. In this step the programme produced is also made ready for broadcast.

Self-Assessment Exercise 3

Answer all questions briefly:

1. Give the main advantages of post-production.
2. Why is it said that the success of the programme produced depends on post-production?
3. Does a 'live' show require post-production? Justify your answer.
4. Would you recommend a fictional programme to go without post-production stage? Why?

8.5 Summary

Pre-production is the stage before you can begin your video shoot. Pre-production starts with the creative idea for the programme production, which is followed by scripting, storyboarding and subsequently paying attention to the logistics necessary for the actual production. Planning, budgeting, seeking permit, cost, financing, hiring additional workforce, etc are some of the activities performed at this stage. Production stage comes after Pre-production which is the stage when all the activities related to actual shooting for programme production take place. Camera handling and movement, lighting, audio, video recording, and many related activities take place at this stage. Post-production stage sees the performing of activities related to editing, adding voice over or music, adding any graphics, text or additional footage to the film. Therefore, it is a very important stage which can take the longest period of time.

8.6 Glossary

Analog recording (analogue): Analog systems directly record the variations of the video and audio signals. They have a tendency to deteriorate when dubbing copies and can only be recorded on tape.

Aperture: The opening in the lens that lets light into the camera.

Arc: A camera move that moves around the subject in a circle, arc, or "horseshoe" path.

Aspect ratio: Televisions have an aspect ratio of 4:3 or 17:9. It is important to keep the aspect ratio in mind when designing sets so that they fit the screen.

Audio filters: May be used to reduce background noises (traffic, air conditioners, wind), or compensate for boomy surroundings.

Audio mixer: A unit used to select, control, and inter-mix audio sources. It may include filter circuits, reverberation control, and so on. It is usually operated by the *audio mixer* (a job title as well as the name of the board) or *A-1.*

Auto-focus: Some lenses are designed to automatically focus on the subject.

Backlight control: When there is more light in the background than on the subject, some cameras use a backlight control button, which opens up the iris an arbitrary stop or so above the auto-iris setting to improve the subject's exposure.

Barn doors: These metal flaps are usually attached to the top, bottom, and sides of the light in order to shape the beam.

Base light: An even lighting covering the area to be shot. This simple light level is enough to create a good video image in the camera. However, it does not create a mood, artistic feel, and so on.

Batten: The horizontal bar that lights are hung onto in a studio. This bar may include electrical receptacles.

Bidirectional microphone: This microphone can pick up sounds equally well both in front and in back but is deaf on either side.

Black-stretch control: Some cameras include a black-stretch control button that can be adjusted to make shadow detail clearer and improve tonal gradation in darker tones.

Boom pole: A pole that is used to hold a microphone close to a subject.

Breakdown sheet: An analysis of the script to determine the optimal sequence for shooting the scenes or for analyzing the budget.

Camcorder: A camera with a built-in recording device.

Camera control unit (CCU): Equipment that controls the camera from a remote position. The CCU includes setting up and adjusting the camera, luminance, color correction, aperture, and so on.

Camera script: Adds full details of the production treatment to the left side of the "rehearsal script" and usually also includes the shot numbers, cameras used, positions of camera, basic shot details, camera moves, and switcher instructions (if used).

Character generator: Character generator, *or CG*, is a generic name for any type of television graphic creation equipment.

Chroma-key: Utilizing a production switcher, the director can replace a specific color (usually blue or green) with another image source (still image, live video, prerecorded material, etc.).

Condenser microphone: A high-quality microphone that can be very small and is generally powered by an inboard batter, phantom power, or a power supply.

Continuity: The goal of continuity is to make sure there is consistency from one shot to the next in a scene and from scene to scene. This continuity includes the talent, objects, and sets. An example of a continuity error in a production would be when one shot shows the talent's hair combed in one direction and the next shot shows it in perfect condition.

Contrast: The difference between the relative brightness of the lightest and darkest areas in the shot.

Cut: The "cut" or "take" is the most common transition when editing. It is an instantaneous switch from one shot to the next.

Cutaway shot: These shots are used to cover edits when any sequence is shortened or lengthened. Generally it is a shot of something outside of the current frame.

Cyclorama (cyc): A general-purpose detail-less background. It can be neutral, colored with lights, or absent any light (black).

Deep focus: Deep focus, or large depth of field, is when everything in the shot is clearly in focus.

Depth of field: The distance between the nearest and farthest objects in focus.

Diffused light: Soft or overcast light.

Digital recording: The *digital* system regularly samples the waveforms and converts them into numerical (binary) data. This allows many generations of copies to be made without affecting the quality of the image. Digital systems also allow the data to be recorded on media other than tape, such as hard disks or flash memory.

Digital zoom: Zooming is achieved by progressively reading out a smaller and smaller area of the same digitally constructed image. The image progressively deteriorates as the digital zoom is zoomed in.

Digitize: Converting the audio and video signals into data files. This term is used when transferring video footage from a camera (or other video source)to a computer.

Directional microphone: This type of microphone can pick up sounds directly in front of it.

Dissolve (mix): A gradual transition between two images. A dissolve usually signifies a change time or location.

Dolly (track): (1) The action of moving the whole camera and mount slowly toward or away from the subject. (2) A platform with wheels that is used to smoothly move a camera during a shot.

Dynamic microphone: A rugged, low-maintenance, not easily distorted microphone.

EFP: An abbreviation for "electronic field production." EFP generally means shooting in the field with one camera.

Ellipsoidal: The ellipsoidal light is a sharply focused/defined spotlight. for "electronic news gathering." ENG usually refers to shooting with a single camera outside the studio.

Equalizer: An audio filter that can boost or reduce any segment of the audio spectrum.

Fade: A gradual change (dissolve) between black and a video image. Usually defines the beginning or end of a segment or program.

Flash memory: These cards can store large amounts of digital data without having any moving parts. This makes them durable, able to work in a variety of temperatures, and data can be easily transferred into a nonlinear editor.

Flood lighting: The light scatters in all directions, providing a broad, non-directional light.

Focal length: Simply an optical measurement—the distance between the optical center of the lens and the image sensor, when you are focused at a great distance such as infi nity. It is measured in millimeters (mm) or inches.

Format: The show format lists the items or program segments in a show in the order they are to be shot. The format generally shows the durations of each segment and possibly the camera assignments.

Fresnel: The Fresnel is an unfocused spotlight. It is lightweight, less expensive than an ellipsoidal, and it has an adjustable beam.

Full script: A fully scripted program includes detailed information on all aspects of the production. This includes the precise words that the talent/ actors are to use in the production.

Headroom: The space from the top of the head to the upper frame.

High angle: When the camera is positioned higher than the subject.

Jump cut: A jump cut is created when the editor cuts between two similar shots (two close-ups) of the same subject.

Lavaliere microphone: These small microphones clip on the clothing of the talent and provide fairly consistent, hands-free, audio pickup of the talent's voice.

Linear editing: The copying, or dubbing, segments from the master tape to another tape in sequential order.

Logging: Loggers view the footage and write down the scene/take numbers, the length of each shot, time code, and descriptions of each shot.

Long shot or wide-angle shot: Helps establish the scene for the viewer.

Lower third (L/3rd): A graphic that appears in lower third of screen. Traditionally it contains biographical information.

Luminance: The brightness of the image, how dark or light it appears.

Medium shot: The medium shot tells the story; it is close enough to show the emotion of the scene but far enough away to show some of the relevant context of the event.

Spotlight: A highly directional light.

Tripod: A camera mount that is a three-legged stand with independently extendable legs.

View-finder: Monitors the camera's picture. This allows the camera operator to focus, zoom, and frame the image.

Wipe: A special-effect transition between two images. Usually shows a change of time, location, or subject. The wipe adds novelty to the transition but can easily be overused.

Zoom lens: A lens that has a variable focal length.

--- Sourced from Video Production Handbook by Gerald Millerson & Jim Owens

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8.8 Model Questions

1. Discuss the main activities performed during the Pre-production stage. How important are these activities?
2. Explain the Post-Production stage with suitable examples.
3. What are the various challenges faced during electronic field production?
4. Describe the three-point lighting system. What are its benefits?
5. Distinguish between the Pre-production and Post-production stages of programme production.

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