Forensic Science Crime Dramas

Overview

This lesson encourages students to analyze the forensic science crime drama as a television show genre. Students will evaluate previous knowledge of criminal investigations, how they have acquired this knowledge and the role the media plays in teaching such information. Students will develop a basic understanding of how to categorize a television show based on genre, as well as unique characteristics about forensic science crime dramas as a genre of television. Students will then research and present various topics associated with forensic science both on television and in the actual criminal justice system to obtain an understanding of the discrepancies between the two. Finally, students will use what they have learned to develop a forensic science crime drama of their own.

Learning Outcomes

Students will demonstrate the ability to:

- understand what a forensic crime drama is
- learn how to watch and evaluate the images shown to them in forensic science crime dramas
- understand why forensic science crime dramas promote misconceptions
- learn to ask questions regarding the representation of the justice system on television

Preparation and Materials

Photocopy or print as transparencies the following:

- Crime Scene Photo
- Examples of Television Genres
- Common Characteristics of Forensic Science Crime Dramas

Read the following backgrounders:

- Common Characteristics of Forensic Science Crime Dramas: Teacher Form
- Assumptions Made by Forensic Science Crime Dramas
- Forensic Science: The Facts
- The CSI Effect
Photocopy:

- Classify the Show by Genre
- Forensic Science Research Assignment
- Pitch a Realistic Forensic Science Crime Drama

Procedures

Introduction

In order to probe students’ existing knowledge of crime scene investigations, start the class by distributing or displaying as an overhead transparency the Crime Scene Photo.

Ask your students:

- What is the crime that has been committed? How do you know from the photo?
  (Murder or assault; the body on the floor.)
- What physical evidence can students see that might be clues for the police?
  (Wound on the body; bullet holes in wall; palm prints on window and door; footprints on floor; gun on floor; cup and cigarette on table; assorted other items on floor.)
- What are some different things police could apply to the evidence to help catch the criminal?
  (Ballistics tests on bullets, wound, bullet holes and gun; fingerprinting of gun and palm prints; comparing footprints on the floor to those of the suspect; DNA typing of residue on cup, cigarette, or comb.)
- How do you know what these methods are?
  (Some students will likely say they “just know” about them and don’t remember where or when they heard of them; some may mention novels or newspapers. If necessary, probe students to see if anyone has learned about this from TV portrayals of criminal investigation, particularly forensics-based shows such as CSI and its spinoffs.)

Guided discussion

This discussion should carry on directly from the introduction and the presentation of the Crime Scene Photo.

- Where are some places that you have learned about police investigation methods?
  As noted above, the media and more specifically television should be the overwhelming answer.
- Have you heard of the terms forensics or forensic science? What do they mean?
  Possible answers may include techniques mentioned above such as ballistics analysis, blood splatter analysis, fingerprinting, and DNA testing. The main point to come to is that forensic science is the use of scientific methods to gather evidence for use in criminal investigations.
What are some examples of television shows and movies where forensic science is used to solve crimes?

Some answers may include the CSI: Crime Scene Investigation series, Criminal Minds, Bones, Cold Case and NCIS among others.

Genres (Forensic Science Crime Dramas)

Point out to students that all of the TV shows just mentioned have a number of characteristics in common. Each deals with criminal investigations and features police officers (or people in similar positions) as protagonists; some deal more specifically with forensic science and have scientists as protagonists.

Introduce students to the term genre and ask if any know what it means when applied to a media text (TV show, movie, book, etc.) Lead the students to a definition of genre as an identifiable group of media texts that all share certain common characteristics. Ask students if they can identify any genres common in TV or movies: common answers might include action movies, comedies, or talent shows. Point out that many genres also include identifiable sub-genres: romantic comedies, for instance, are a sub-genre of comedy. Mention also that some texts can fit in more than one genre (for instance, a show might be both a medical drama and a soap opera.)

Make sure that students understand that genre is distinct from format, which refers to more technical elements such as length, seriality (continued story versus a single story), animation versus live-action, etc: a one-hour TV drama is a format, but a medical drama is a genre; "reality show" is a format, but "talent show" is a genre.

Television Genres (Optional Exercise)

Display Examples of Television Genres as a transparency onto the overhead. Have the students read each of the listed genres and their descriptions.

Distribute the Classify the Show by Genre handout and have students fill it out in groups, pairs or as a class. When the students have finished, go over the results with the class. Which shows were clearly identifiable as being in a single genre? Which shows fit more than one genre? What characteristics made genre identification possible?

Viewing a Forensic Crime Drama (Optional Exercise)

To better help students become familiar with the forensic science crime drama genre there are some optional activities that can be completed. However, the lesson can be completed without this exercise.

- A clip of a forensic crime drama can be shown in class (Many TV networks make their shows available for public viewing on their Web sites. Be sure that you have viewed the clip to ensure that it does not contain content inappropriate for class.)
- Students can be assigned to find a forensic crime drama on television at home and summarize what they have seen.
- Selected students can explain to the class the plot of a forensic crime drama they have recently watched.
Activity

The Forensic Science Crime Drama

The following exercise will help students recognize the common characteristics of this genre.

Using your Common Characteristics of Forensic Science Crime Dramas: Answer Sheet as a reference, post Common Characteristics of Forensic Science Crime Dramas on an overhead projector or distribute this as a handout.

Have students complete the chart either through a class discussion, with answers written on the board; individually as seatwork; or in groups with groups reporting on various sections.

Once the charts have been completed and students have presented their answers facilitate a more in-depth class discussion on the findings. Questions might include:

- What have you learned about forensic dramas? How do they differ from the broader genre of crime dramas? (For example, many of them have scientists as protagonists instead of police officers.)
- What audience do they appeal to and what do the shows do to appeal to their target audience? (For example, shows that appeal to an older audience are more likely to show criminals being caught.)
- What values do these shows communicate? What lessons can be drawn from them? (For example, criminals are always captured in the end; forensic science is primarily used to convict the guilty.)

Research Assignment

For this activity you should book time for students to use the library or a computer lab; alternately, you can have students perform the research on their own time.

This activity allows students to research different areas related to forensic science crime dramas and then teach the information they have learned to the class. In pairs, have students select a topic they wish to research from the Forensic Science Research Assignment topic list. (Alternately, you may assign topics to the students.) Make sure that one group researches the topic "The CSI Effect," as this will be important in a later activity. Tell students to research their topic and then create a ten minute presentation to explain their topic to the class.

Optional: Students should also choose or be assigned a second topic, for which they prepare five questions to ask the group that is conducting research on it. The students should do enough research on their second "shadow" topic to be able to ask intelligent questions.

Presentations

Have each pair of students present their topics in the order they appear on the Forensic Science Research Assignment topic list. After each presentation, have the "shadow" group ask their prepared questions and allow the rest of the class to ask questions as well.
Discussion

Once the presentations have concluded, discuss with the class how what they have learned about forensic science relates to how it is presented on TV:

- How are they similar? (*For example, both show that forensic science is used extensively in the investigation and prosecution of crime.*)
- In what important ways are they different? (*For example, forensic science is presented as being much more conclusive on TV than it is in real life; forensic scientists rarely have direct contact with suspects, as they do on TV; forensic evidence is used as often to acquit suspects as to convict them, but on TV it is nearly always used to convict. See the backgrounders Assumptions Created by Forensic Science Crime Dramas and Forensic Science: The Facts for a more thorough list.*)

Ask students why they think television depicts forensic science in an unrealistic way. Make sure that they consider the conventions of the crime drama genre and the expectations of the audience. (*For example, a realistic portrayal might not be sufficiently dramatic; protagonists in crime dramas are expected to be active and assertive, not stuck in the lab; the shows' audience wants to see criminals being convicted, not acquitted.*)

Activity

**Pitch a Realistic Forensic Crime Drama**

The purpose of this exercise is to combine students' knowledge of the characteristics of the forensic science crime drama genre with characteristics of a real-life criminal investigation. Divide the class into groups. Have students develop a new television show that looks to create a more realistic presentation of criminal investigations.

Hand out the *Pitch a Realistic Forensic Science Crime Drama* exercise and have the students complete this assignment.

Students may either submit their proposed shows to you or "pitch" them to the class. If you choose the latter option, have the rest of the class play the role of "producer" and decide whether or not this sounds like a show that would be successfully produced for television.

Assessment and evaluation

Teachers may choose to evaluate students on either or both of the Forensic Research Presentations and/or the Realistic Forensic Crime Drama pitches.

**Forensic Research Presentations**

Teachers may evaluate students based on:

- Completeness and accuracy of information
- Quality of research, bibliography and authentication of sources
- Organization, preparation, confidence and clarity of presentation
- Depth and relevance of questions
Realistic Forensic Crime Drama

Teachers may evaluate students based on:

- Creativity of the proposal
- Knowledge and understanding of genre conventions
- Thoroughness and depth of thought in reflecting on choices made
- Understanding of how commercial considerations affect creation of a media product
Crime Scene Photo
Examples of Television Genres

Legal Drama: A legal drama is any dramatic program that deals with legal procedures and/or court cases.

Crime Drama: These are television dramas that involve any aspect of law enforcement or criminal activity.

Forensic Science Crime Drama: These shows are dramas in which forensic criminal investigative methods and techniques are frequently used.

Police Procedural: These are drama programs that feature mystery stories depicting the investigation of criminal activity. A criminal’s identity is usually not revealed until the climax.

Medical drama: This genre is a television drama that revolves around characters or events in the medical profession.

Comedy: Shows that are intended to provoke laughter in the audience.

Sitcom (Situational Comedy): These shows follow recurring characters in comedic situations. The shows are almost exclusively 30-minutes and often feature a laugh track.

Sketch Comedy: These are comedy programs that feature short skits or satires. Often they do not feature recurring plots and characters.

Animated Comedy: These are programs that feature cartoons or computer animated characters. Traditionally these shows run about 30 minutes long.

Dramedy: These programs combine both comedy and drama elements. Often these shows aim to be more realistic than sitcoms and they are presented without a laugh track.

Soap Opera: These shows feature different story-lines that can span over several episodes. Each new episode continues on where the previous has left off. Traditionally, soap operas are weekday daytime dramas; however, the term can be applied to any drama that follows this format.

Science Fiction: This genre can feature anything that tests the boundaries of science. Common themes include the supernatural, space, the future and time-travel.

Game Show: These shows feature contestants who play a game, often with the intention of winning a prize at the end.

Talk Show: In these shows one or more individuals come together to discuss various topics.
Common Characteristics of Forensic Science Crime Dramas

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<td>What kinds of problems do the protagonists face?</td>
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<td>How do the protagonists most often solve their problems?</td>
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<td>What kinds of behaviours are rewarded in these shows? What behaviours are punished?</td>
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<td>Who is the intended audience? (Think about what products are advertised during the show.)</td>
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## Common Characteristics of Forensic Science Crime Dramas: Teacher Form

<table>
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<th>Category</th>
<th>Common Characteristics – Talking Points</th>
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| **Common Settings** | *What are some of the cities that these shows take place in?*  
The CSI series and its spin offs all take place in large cities that are displayed as exciting or glamorous.  
The crime scene setting is rarely in the home of an ordinary citizen. Draw awareness to the fact that setting is picked to make the shows more appealing to the audience. (For example, crime scenes are often in hotels, casinos, mansions, nightclubs, or theme parks. A crime scene in a run down house or trailer is a rarity.) |
| **Main Characters** |                                                                                                                                                                                                                                          |
| Protagonists      | *What are the age and sex of the characters? List any defining characteristics.*  
Male characters are often seen as cunning or intelligent and are not usually affected by the tragedies of the crime scenes.  
Female roles are often filled by attractive young actresses and their characters often show compassion, empathy and emotional strength. |
| Antagonists       | *Who are the criminals? Who are the typical male and female villains pursued? What are their motivations?*  
Answer: Criminals in these shows always have clear motivations; they are almost never impulsive acts. Murders and assaults rarely fit the most common real-life patterns such as spousal abuse and vehicular homicide. Criminals may fall into stereotypes such as:  
  - The jealous mistress  
  - The cheating husband  
  - The fired employee  
  - The crazy stalker  
  - The financially motivated killer |
| Victims           | *What are common characteristics of the victims (age and sex) and what relationship do(es) the victim(s) have to the antagonist or criminal?*  
It is rare that crimes involve poor or working-class victims unless these crimes are done in serial fashion (for example, a serial killer who preys on the homeless). |
| Other Characters  | *Who are some of the other characters who are presented on a crime scene? What are their roles?*  
Police officers are often seen as assistants to forensic scientists. They are seen as lower in the chain of command, often taking orders. The depiction of police officers in uniform is often as individuals who help with crowd control at the crime scene. |
### Forensic Science Crime Dramas

#### What kinds of problems do the protagonists face?

- What is the most likely crime that they will have to investigate? Forensic science crime dramas almost exclusively involve homicide cases.
- What obstacles must the investigators overcome in order to find out who committed the crime?

They typically use forensic science techniques, such as finding DNA material that is extremely small, identifying the suspect using partial fingerprints or incomplete forensic evidence.

They also often take on roles more traditionally held by police officers, such as pursuing or arresting criminals or determining whether a suspect is lying using their superior interrogation skills and/or their great observation skills.

#### How do the protagonists most often solve their problems?

- What types of techniques are used to help catch the criminals and solve the crime? How do the investigators solve the crimes?

Fingerprinting, footprint analysis, blood splatter analysis, DNA testing (cigarettes, fingernails, hair), and interrogations are just a few of the common techniques shown.

- The investigators nearly always prevail and catch their suspect.
- The suspect often confesses to their crime, leading to the investigator “getting their man”.
- The investigators usually use science to catch the criminal; most often, without the use of science the criminal would not be caught. Therefore these shows depict science as an important and useful tool in the fight against crime.
- The lives of the main characters and their attributes make them aspirational figures, characters that the viewers want to be like; this makes the profession of crime scene investigator seem glamorous.
- Murder is the most frequent criminal activity being investigated and almost all of these murders are solved.
- The science used to find the smallest traces of physical evidence and then the expertise of the investigators to link this evidence to the suspects suggests that it is nearly impossible to get away with murder.

#### What kinds of behaviours are rewarded in these shows? What behaviours are punished?

- Who are these shows created for? What age group? What sex?
- What times are they on television? Are there any parental warning or ratings?

These shows often to appeal to teens and young adults that enjoy the excitement of seeing violent crimes investigated. The shows are not appropriate for younger audiences and often feature parental warnings.

- What types of companies advertise during these shows and what type of companies do not?

Possible answers include: Home security systems, hygiene products, technology, and adult focused ads among others.

Advertisements that are not shown include toys and things for children, and things for the elderly.
Assumptions Made by Forensic Science Crime Dramas

- The physical evidence collected at a crime scene cannot lie
- Truth can always be revealed through science
- Police forces completely understand science and are able to use it effectively
- Different experts always agree on the physical evidence
- Cases are solved and justice is served in the crime lab
- Forensic science is easily understood
- Every criminal case involves a lot of physical evidence
- Forensic scientists spend the majority of their time at the crime scene finding clues
- Forensic scientists analyze the data and then draw conclusions on what they have found
- Forensic scientists are detectives who have an understanding of science
- Forensic testing takes little-to-no time to complete and police can expect same day results

Sources:

Forensic Science: The Facts

- Deoxyribonucleic acid or DNA is a nucleic acid present in all living organisms
- Any organism can be identified using DNA because of unique sequences that the organism possesses. However, the ability to identify individuals within a species is more difficult and less precise
- Only about one-tenth of a per cent (0.1%) of DNA differs from person to person. This means that any two humans are genetically 99.9% the same
- According to Peter J. Neufeld, founder of the Innocence Project, “80 percent of the stuff [forensic technology] you see on TV hasn't been invented yet”
- Canada currently has a 30-day target period for the return of DNA testing; however, the average return period is 114 days. Although a forensic service can process urgent requests in less than 15 days, these requests account for only 1% of cases
- The Auditor General of Canada has stated that forensic labs often do not have sufficient quality assurance processes
- A forensic scientist's job is to objectively analyze evidence. Often any inferences taken from the data are completed by police and prosecutors. This means the majority of a forensic scientist's time is spent in the laboratory
- Forensic scientists are often chemists and biologists with extensive knowledge in these fields

Sources:

The CSI Effect

There are many discrepancies between the procedures used in the forensic sciences on television and actual criminal investigation in reality. These discrepancies have caused problems in the criminal justice system and more particularly in jurors' perceptions. Scholars of criminal justice describe forensic science television's influence as “The CSI Effect”.

Often, jurors do not possess any knowledge that allows them to assess the accuracy of forensics on television; this lack of knowledge has affected their ability to accurately analyze real-life forensics.¹ A study on the perceptions of the public on the use of DNA in forensics showed that the majority of individuals gain their knowledge of DNA and forensics exclusively from the media.²

The misconceptions around forensics can lead to some negative outcomes. Eight of ten jurors interviewed are disappointed in the lack of forensic evidence displayed in a trial³ and anecdotal accounts suggest that juries that feel as though the forensic evidence is lacking are more inclined to acquit defendants.⁴ This means that unreasonably high expectations of jurors, caused by misconceptions learned in forensic television, have a large effect on the decisions of a criminal trial.

Another problem, according to prosecutors, is that forensic television viewers may claim a level of expertise while on juries, using their misconceptions to sway other juror’s decisions.⁵ The result of the misconceptions is that police and prosecutors face a greater burden of proof in terms of the forensic evidence displayed in order to get a conviction.

4 Robbers (2008).
5 Thomas (2005).
Classify the Show by Genre

The following is a list of television shows with a brief description of each. Please label these shows by the genre they fit into. Note: Some shows can fit into more than one genre.

1. **How I Met Your Mother**
   This is a 30 minute show that depicts comedic situations involving a group of young friends living in New York City.
   Genre(s): ______________________________________________________________
   How do you know?: _______________________________________________________

2. **The Simpsons**
   This show follows an animated family on their comedic adventures. Each episode features a new adventure or situation.
   Genre(s): ______________________________________________________________
   How do you know?: _______________________________________________________

3. **Jeopardy**
   Three contestants answer numerically ranked trivia questions asked to them by a host. The contestant who finishes with the highest score wins money.
   Genre(s): ______________________________________________________________
   How do you know?: _______________________________________________________

4. **The View**
   In this daytime show a panel of women discuss various issues.
   Genre(s): ______________________________________________________________
   How do you know?: _______________________________________________________

5. **Hawaii Five-0**
   This show follows members of a special police task force in Hawaii as they attempt to solve crimes.
   Genre(s): ______________________________________________________________
   How do you know?: _______________________________________________________
6. **House**
   This series follows a medical doctor and his colleagues as they try in each episode to cure new patients that have unique medical conditions.
   
   Genre(s): ______________________________________________________________
   
   How do you know?: _______________________________________________________

7. **7) The Young and the Restless**
   This daytime show follows the dramatic personal and professional lives of characters in Genoa City, Wisconsin. The show's story-line is continuous from episode to the next.
   
   Genre(s): ______________________________________________________________
   
   How do you know?: _______________________________________________________

8. **COPS**
   A documentary crew follows real-life police officers during their daily activities.
   
   Genre(s): ______________________________________________________________
   
   How do you know?: _______________________________________________________

9. **Law & Order**
   This fictional show follows police detectives and the district attorney's officer (lawyers) as they try to solve new crimes and convict new criminals in each episode.
   
   Genre(s): ______________________________________________________________
   
   How do you know?: _______________________________________________________

10. **CSI: Crime Scene Investigation**
    Fictional forensic scientists are followed as they answer how and why a particular crime happened through the use of forensic scientific methods and techniques. The show is labelled as both a whodunit and howdunit with a new crime being examined in each episode.
    
    Genre(s): ______________________________________________________________
    
    How do you know?: _______________________________________________________

11. The Good Wife
This show is about a lawyer forced to return to work when her husband, a politician, is sent to jail following a scandal. The plots follow various court cases and the lawyers who work these cases, as well as the personal story of the protagonist and her husband.

Genre(s): ______________________________________________________________

How do you know?: _______________________________________________________

12. The First 48
This series follows real-life homicide detective units as they use different criminal investigation methods to solve murders.

Genre(s): ______________________________________________________________

How do you know?: _______________________________________________________

12. Family Guy
This show follows the day-to-day activities of an animated family. Although the show is animated it uses a comedic approach and features adult topics. Each new episode features a different story-line.

Genre(s): ______________________________________________________________

How do you know?: _______________________________________________________

12. Saturday Night Live
This late night television show, intended for adults, parody’s societal issues in the format of several short skits.

Genre(s): ______________________________________________________________

How do you know?: _______________________________________________________

15. Fringe
This show follows the efforts of Fringe Division, a task force created by the FBI to investigate cases relating to “fringe science” such as psychic abilities. As the series goes on, the storylines begin to revolve around connections between our world and a parallel universe.

Genre(s): ______________________________________________________________

How do you know?: _______________________________________________________
Forensic Science Research Assignment

Research one of the topics below and prepare a ten minute presentation that allows you to teach what you have learned to others. In your presentation, make sure you cover the most important aspects of your topic.

Find at least three sources for your presentation and list them in a correctly-formatted bibliography. Submit the bibliography and a written version of your presentation to your teacher on the day of your presentation.

A. Research Topics:

Professions:

For each of the following professions report on: their essential duties; training and education required; what role they play in a criminal investigation and/or prosecution; and, a typical day in their job.

- Police Officer
- Police Detective
- Crown Attorney
- Medical Examiner
- Forensic Entomologist
- Forensic Psychologist
- Forensic Archaeologist
- Forensic Anthropologist
- Forensic Dentist/Forensic Odontologist
- Forensic Ballistic Expert
- Forensic Toxicologist
- Fingerprint Analyst
- Bloodstain Analyst

Forensics in the justice system

- The history and use of DNA in criminal investigations
- The history and use of fingerprinting in criminal investigations
- The history and use of phrenology in criminal investigations
- “The CSI Effect"
- The Innocence Project

Media

- The origins and influence on other TV programs of the CSI: Crime Scene Investigation television series
- The development of the forensic investigation genre
- The history of police dramas

B. Questions:

You are also responsible for researching a topic other than your own so that you are able to prepare five intelligent questions about it.
Pitch a Realistic Forensic Science Crime Drama

It is your job to develop a new television program in the forensic science crime drama genre. The goal is to create the most entertaining premise you can while applying what you have learned about the field to make sure the show is a realistic portrayal of forensic science.

Create your description of the show and one possible plotline that can be pitched to a studio executive. Answer all of the questions below in full sentences and explain in each case why you made the choice you did.

Television Show Description

Intended Audience:
What age group and sex are you developing this show for?

Setting:
Where does the show take place?
Where will the majority of the action take place (examples: courtroom, police station, crime scene, laboratory)?
Why did you make these choices? How does each one contribute to making the show more entertaining or realistic?

Main characters:
List 3-5 major characters in your show. What profession will each one have and what role will they play in the show? Provide personal information about each character (age, sex, etc.).
Why did you make these choices? How does each one contribute to making the show more entertaining or realistic?

Conflicts:
What will be the main problems faced by the characters in the show?
Why did you make these choices? How does each one contribute to making the show more entertaining or realistic?

Techniques Used:
What types of forensic science investigation techniques will you include in your show? How will they be used to solve the problems or conflicts that occur?
Why did you make these choices? How does each one contribute to making the show more entertaining or realistic?
Pilot Episode (first episode):

Include a plot summary

- What crime has taken place?
- Where did the crime take place?
- How are the main characters involved?
- How is the crime being solved?
- Over how much time does the episode take place?
- Who is/are the victim(s)?
- Who is/are the suspect(s)?
- How does the episode end? Is/are the suspect(s) released, convicted or acquitted?

Intended audience (part two):

How did your intended audience influence the choices you made in creating your show?