

Technology/Media Choices

Month: Mar.

Week #: 26

Day: a. Mon. Time: 30 - 45 min.

How Much TV Do You Watch?

Life Tree Learning Systems ©

Objectives/Aims

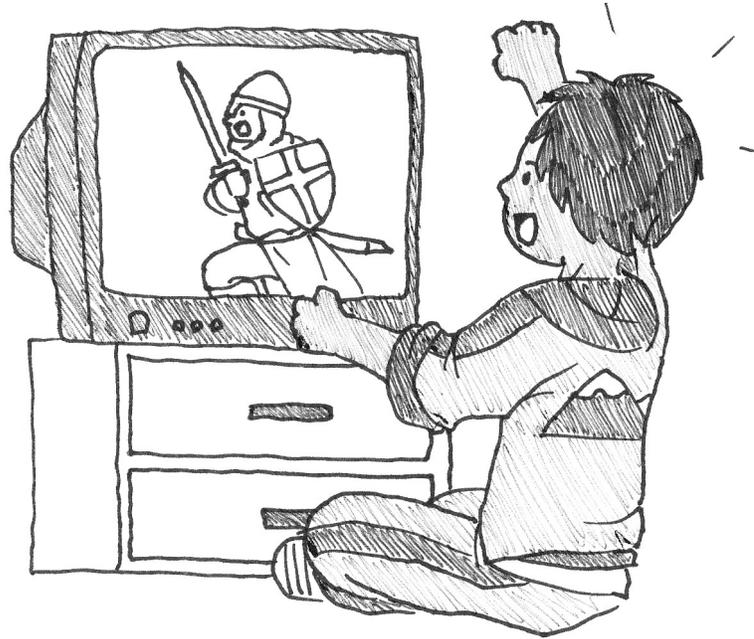
The students will: recognize the adverse affects of excessive TV viewing

Materials

scrap paper, pencil, completed Technology/Media Choices worksheet

Illustration

Oliver is really enjoying this TV show. I wonder how many hours of TV he watches each week? How many hours do you watch a week?



Background

“For the past 15 years, the American Academy of Pediatrics (AAP) has expressed its concerns about the amount of time children and adolescents spend viewing television and the content of what they view. According to recent Nielsen Media Research data, the average child or adolescent watches an average of nearly 3 hours of television per day. This figure does not include time spent watching videotapes or playing

video games (a 1999 study found that children spend an average of 6 hours 32 minutes per day with various media combined). By the time the average person reaches age 70, he or she will have spent the equivalent of 7 to 10 years watching television. One recent study found that 32% of 2- to 7-year-olds and 65% of 8- to 18-year olds have television sets in their bedrooms. Time spent with various media may displace other more active and meaningful pursuits, such as reading, exercising, or playing with friends.”¹

1. American Academy of Pediatrics, Committee on Public Education. Children, Adolescents, and Television. PEDIATRICS Vol. 107 No. 2 February 2001 423. Accessed on the web at: <http://aappolicy.aappublications.org/cgi/reprint/pediatrics;107/2/423.pdf> Last visited on 3/5/08

Note: Based on the survey results of my own classroom, there seems to be a trend away from television viewing to more computer and on-line activities. I could not find any recent research to either confirm or deny this impression.

Group Activity

1. Instruct students to bring their Technology/Media Choices worksheets with them to line. Say, “Today we’re going to look at how much time you’ve spent watching TV and movies this past week. At this point, we’re not going to distinguish between programs that are either educational or entertainment. Tomorrow, we look at the quality and content of the TV shows and movies that you watch.”

Group Activity (concluded)

“On your Technology/Media Choices worksheets or on pieces of scrap paper, please add up how much time you spent watching TV and movies this past week. Make sure you don’t put your name on the paper as we are going to do this anonymously. Since we are doing this anonymously, you don’t have to worry about what the other students will think, so you can be totally honest.” When all the students are done, collect the papers and tally the results. “We’re now going to find the average amount spent watching TV and movies each week by dividing our total number of hours by the number of students in the class.” Do this computation and record the results on the board.

Group Discussion Questions

1. How much TV do you think the typical child or teenager watches per week?

A: Surveys indicate that they are watching nearly 3 hours per day or 21 hours per week.

2. By a show of hands, how many of you think this is too much TV? Too little TV? Or just the right amount?

A: Pediatricians (children’s doctors) are recommending that a “child’s total media time be no more than 1 to 2 hours of quality programming per day.”¹

3. Why do you think pediatricians are recommending such a limited amount of viewing time?

A: “Time spent with various media may displace other more active and meaningful pursuits, such as reading, exercising, or playing with friends.”¹

A: “Although there are potential benefits from viewing some television shows, such as the promotion of positive aspects of social behavior (e.g. sharing, manners, and cooperation), many negative health effects also can result. Children and adolescents are particularly vulnerable to the messages conveyed through television, which influence their perceptions and behaviors. Many younger children cannot discriminate between what they see and what is real. Research has shown primary negative health effects on violence and aggressive behavior; sexuality; academic performance; body concept and self-image; nutrition, dieting, and obesity; and substance use and abuse patterns.”¹

A: Other articles suggested that excessive TV viewing can also prevent the normal development of the senses, negatively impact a child’s sense of wonder, imagination and creativity. While these assertions seem reasonable, there wasn’t any research cited to support these ideas.

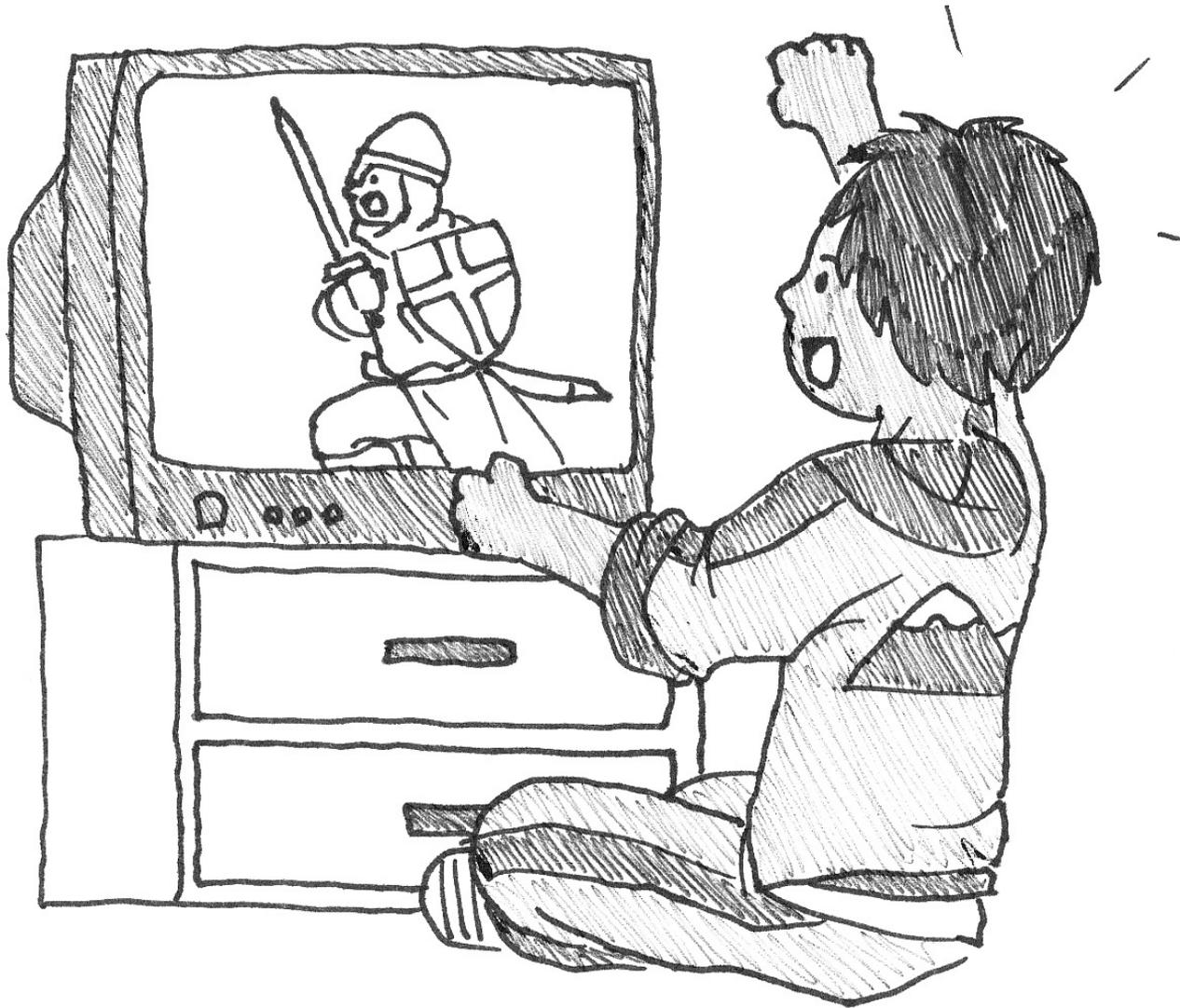
Variations/Extensions

Conclusion

Say, “How much TV are pediatricians recommending? Pediatricians are recommending that a child’s total media time be no more than 1 to 2 hours of quality programming per day. And what do they mean by *quality* programming? Tomorrow we’ll answer this question when we critically examine various TV programs.”

Mar. 26 a. Mon.

Technology/Media Choices: How Much TV Do You Watch?



Oliver is really enjoying this TV show. I wonder how many hours of TV he watches each week? How many hours do you watch each week?

Research on the Effects of Television

Written by Hilary Jackson

Summary of Research on the Effects of Television Viewing

Numerous scientific studies have assessed the effects of TV on children, evaluating the question from many points of view. Following is a brief review of research findings.

It covers: Effects on Sensory Development (Sight Hearing) Impacts on a child's 'Sense of Wonder' Effects on Health, (Radiation and artificial light, Obesity, Sleep deprivation), Reading skills, Effects on Creativity and Imagination, Effects on Social Development, Effects on Perceptions of Reality.

Surveys indicate that 7-17 year olds average between 25-30 hours per week, while some preschoolers may be viewing up to 60 hrs/wk. In 1971 average viewing time for pre-school children was 34 hrs/wk; most recent figures suggest 54 hrs/wk. This means that in many instances, the majority of some child's waking hours are spent with the TV on.

Surveys further indicate that by the time children graduate from high school, they will have spent more hours in TV viewing than in school. Assuming an average of 3 hrs/day, children view 20,000 commercials a year. By age 16, they will have witnessed 200,000 violent acts, including 33,000 murders.

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Effects on Sensory Development

Children who are actively playing will have more opportunity to develop their senses than children passively viewing. By its very nature, TV is an impoverished sensory environment. In a recent study comparing TV viewing with laboratory simulated sensory deprivation, researchers found that 96 hours of laboratory induced sensory deprivation produced the same effects on the person as only a few minutes of TV viewing. Normal sensory experience is vital to maintaining a balanced state of mind and body.

Sight

While viewing, the eyes are practically motionless and 'defocused' in order to take in the whole screen. Constant movement is required for healthy eye development. Visual exploration is a prerequisite of seeing, and necessary for developing a sense of depth and perspective. The two-dimensional screen does not facilitate such development. The sense of sight is maturing through age 12. Excessive TV viewing, one of the most passive visual activities, can seriously impair a child's observational skills. Viewing affects not only eye mechanics, but also the ability to focus and pay attention.

Hearing

Since TV is more visual than auditory, children's sense of hearing is not being fully exercised. Active listening is a skill that needs to be developed. Children need practice in processing auditory stimulation, making their own mental pictures in response to what they hear. Also, when TV is constantly on, the sense of hearing may be dulled by the persistent background noise.

Sense of wonder

The subtle rhythms and patterns of life's wonders, which can only be appreciated through patient observation and experience, will hold little interest for a child given a steady diet of TV. The fast paced, action-packed, high drama, which is programmed to keep viewers tuned in, does not accurately represent the natural world, yet it is what children come to expect. Real experiences, therefore, can't compete with TV and the child's sense of wonder is dulled.

Effects on Health

Because of the activities it displaces, TV viewing certainly impacts motor co-ordination, balance, and general level of fitness. Yet there are other, perhaps less obvious, effects.

Radiation and artificial light

Early research on radiation has led to a substantial reduction in the amount of X-rays being emitted. Little experimental evidence exists on the effects of artificial light on people; further research is needed before conclusions can be made. In the meantime children should be nourished as much as possible by natural light, and not 'overdosed' with artificial TV light.

Obesity

Elevated cholesterol and obesity are two of the most prevalent nutritional diseases among U.S. children today. TV viewing has been found to be associated with both of these conditions. Likewise, viewing correlates significantly with between-meal snacking, consumption of advertised foods, and attempts to influence mothers' food purchases.

Sleep deprivation

Many studies indicate that children are staying up late to watch TV. One reported that children as young as eight were still watching TV at 11:30pm on school nights. Teachers comment that children are too tired and irritable to work well after late night viewing. Sleep is a physical necessity, required to build up the growing organism. It is also a psychological necessity, the prerequisite for dreaming. Yet dreams after TV viewing may be disturbed, with vivid TV images resurfacing and causing nightmares.

Effects on Cognitive and Intellectual Development

Numerous child development and educational experts express great concern with television's numbing effect on children's brains. Many reports suggest that our children's minds are not developing the way they should, and this is attributed in large measure to excessive TV viewing.

Language acquisition

In the early years, when the brain is so malleable and sensitive, TV viewing prolongs the dominance of right brain functions, which induce a trance-like state. When viewed for more than 20 hours per week, TV can seriously inhibit the development of verbal-logical, left brain functions. The patterning that the brain needs, for language development, is hindered by viewing during this language sensitive period of infancy, and it may be more difficult to acquire speech later on. Studies document that general word knowledge and vocabulary are not affected either positively or negatively by TV, but that creative verbal fluency is lower for children who watch TV more because it does not offer time for interactive play and conversation.

Reading skills

A great many studies have documented declining literacy rates over the last thirty years. TV viewing is an easier and preferred activity compared to the challenge of book reading, especially for children who have not yet developed fluent reading skills. TV requires little concentration, de-focuses the mind, offers electronically produced images, and encourages passivity, while reading necessitates concentration, thought, focusing, and the ability to visualize. Television trains short attention spans, while reading trains long attention spans. Studies suggest that light viewers learn to read more easily than heavy viewers. Research into brain wave patterns confirm these differences. Studies of both children's and adults' brain wave patterns while viewing TV confirm that brain activity switches from beta (indicating alert and conscious attention) to alpha waves within thirty seconds of turning the set on. Greatly increased alpha waves resulted regardless of whether children were interested in the program or not. The electrical responses of the brain while viewing resemble those which do not normally occur when the eyes are open.

Effects on Creativity and Imagination

'Boredom' is the empty space necessary for creativity. With TV filling a child's leisure moments, the necessary void is never experienced. Additionally, the child's play is often restricted to forms prescribed by adult programmers whose primary objective is to sell toys. With predetermined themes and ready-made playthings, little is left to the imagination.

Furthermore, when children are bombarded with TV images, their own ability to form imaginative pictures becomes severely impaired. This process of generating internal pictures is critical to the development of dendrites and neural connectors which lay the foundation for intelligence and creativity. Studies which have investigated how TV viewing affects performance in creative problem solving suggest

that excessive viewing may lead to decreased attention, persistence, and tolerance. The displacement of problem solving opportunities also results in a more limited repertoire of creative solutions.

Effects on Social Development

Television is not a substitute for meeting and interacting with real people in real situations. A child cannot develop a sense of self in the absence of contact with others. While viewing, a child is not gaining practice in relating to others, and in constructive interpersonal problem solving. Furthermore, most TV problems are framed in oversimplified, black-white thinking and resolved, often violently, in one hour (less commercial breaks).

Over thirty years, findings have consistently demonstrated that violence on TV correlates with subsequent aggressive behavior. Recent evidence from an extensive longitudinal study carried out in four different countries suggests there is a sensitive period that begins before age eight when children are especially susceptible to the effects of violence shown on TV.

Effects on Perceptions of Reality

Heavy TV viewers develop a distorted sense of reality. Most notable may be an exaggerated perception of the prevalence of violence in society, which comes from an overrepresentation of violent acts in programs. (The frequency of violence in children's programs is six times greater than that of adults').

Pervasive sex-role and racial stereotyping further perpetuates a distorted view. A recent census of characters and their occupations depicted in prime time and children's programs revealed that three times as many men as women appeared on TV, and the most common jobs portrayed were in traditionally male areas.

T.V. Numbs Brain

It is official: television numbs the brain. Research suggests that the **box in the corner bypasses your critical faculties altogether** and goes into that part of the brain where meditation and sleep are situated.

Naturally, television people are keeping this revelation as quiet as possible, but all were told about the test findings and conclusions by Bryce Gyngell, the former chairman of Australia's Broadcasting Tribunal. He told them it was all to do with the left and right sides of the brain, a complicated piece of reasoning that, in the end, sees sensible people nodding off in front of their sets. That is what their brains are suggesting they do once the numbness starts.

You see, **the critical side of your brain is the left.** As you read this you are making judgments, passing opinions and coming to conclusions. Whether they are 'stupid nonsense' or 'I knew it, I knew it' they are being caused by beta brain waves. These are the waves activated when you begin to use that left hand side, the centre of logical human communication and analysis - the certain something that separates us from mammals.

Researchers have found that once the television set is switched on that left hand side and all its faculties tends to switch off. Instead the images from the television's 300,000 little dots (which make up the picture) go straight to the right brain. The switch from beta to alpha waves shows this. Alpha brain waves are the ones we associate with meditation and sleep. By no means does this mean that we are not taking the information in - we are taking it all in, we are just not able to critically evaluate it as we would with information coming from other sources.

This particularly applies to **children who are simply not equipped with the same powers of reasoning and information processing as adults.** To expect a young child to be seeing and experiencing a cartoon in the same way that we do is to deny the delicate process that takes place within each developing human. What we see as a fun and harmless story **may be interpreted in a very different way by a young child.** Who knows from that point where they may then take that information, how they may use it? What lenses they then look at the outside world with? What values they take within?

Researchers have now seized on these facts to ask if T.V. is far from being the great educator everyone is told. In fact, it is now seen as being a quite unsuitable learning tool for our children. The idea is scarcely new. Ten years ago the "Journal of Advertising Research" compared the brain activity of reading a newspaper with the brain activity while watching T.V. Conclusions: **The brain response was totally different..... the response to print was described as active, while the response to television was described as passive.**

Researchers at the National University of Canberra found that **the longer you sit in front of a screen, the slower the brainwave activity**. The Canberra researchers found that the left-brain "sort of went to sleep" once TV was switched on but the right brain was busy "storing information in its memory bank". This is not conscious learning as we know it, a bit like sleep learning in education where students imbibe tapes as they sleep. **Think again of the many violent images / questionable moral values that our children may be unconsciously storing** ... even from what we view as 'harmless viewing', the Hollywoodish type values that a young child gets to intake through the watching of a video? They simply do not process the information as we do.

Meanwhile, cut down your television hours. All programs should carry the message: Warning TV can numb your brain...

Source: Auckland Star 9 June 1982, republished in Raphael House Newsletter September 1984

Television, Health and Physical Education in Children

As any sportsman knows, many athletic skills rest largely on the harmonious marriage of eye, hand and brain. If one of the bases of this triangular relationship is impaired, athletic performance is adversely affected. **Does television viewing by children adversely affect their muscular control and general level of fitness?** There are several indications that it does, regardless of the content of the TV Programs.

Firstly, and most obviously, a child who spends long hours in front of a television is not exercising his/her body at all

Secondly, concern has been expressed about the **effect of low-level microwave radiation** that is emitted by television sets. Children with symptoms such as nervousness, continuous fatigue headaches, loss of sleep) and vomiting have been known to improve markedly when they abstained from viewing.

Thirdly, the small TV screen **encourages fixed staring and minimal eye movement**. Eye movement is a physical skill, that has to be learnt and it vital for reading and any physical activity involving focusing on moving objects and spatial judgments. It is vital for muscular co-ordination.

Fourthly, **bright, flickering, rapidly changing images on the screen can overload a child's vulnerable nervous system**. This sensory overload is stressful. Energy which could be more constructively employed is used to damp down the over-stimulation. The child assumes that familiar, glassy-eyed, autistic stupor. Inability to concentrate is also induced by the other, contracting, after-effect of TV signals on young nervous systems - hyperactivity. The stored up energy seeks release in behavior that is often aggressive and destructive, erratic and ill coordinated.

Finally, **children who watch television internalize negative messages about diet and dental care from that medium** . Any good advice is overwhelmed by a blizzard of advertisements trumpeting the virtues of food and drink with a high sugar, fat and/or salt content.

For some or all of the above reasons, people such as pediatricians, concerned with the effects of T.V. viewing on children, urge that children under 6 years should not watch at all: Half an hour daily for primary and one hour for others are considered a safe maximum.