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https://doi.org/10.37420/j.cer.2021.061

Effects of Medical Film and Listening Materials on Nursing Students' Professional Perceptions and Emotions

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Abstract: *This paper uses visual and auditory materials to teach visual thinking strategies to nursing students to understand their perceptions of the profession and their professional affective status. The teaching was conducted through the use of visual thinking theory and post-class assignments were used to understand students' professional perceptions and emotions. Personal reflections were imported into Nvivo software, and 40 materials were analyzed for textual information, and visual thinking strategies were found to provoke positive thinking, and film, television, and auditory materials had an impact on students' professional perceptions and emotions on four themes. The method of teaching film, television, and auditory materials based on visual thinking theory can have an impact on nursing students' learning and professional perceptions and emotions.*

Keywords: *Film and television; Listening materials; Professional perception; Professional emotions; Visual thinking*

Introduction

In human history, the development of medicine and art have always been intertwined and influenced each other. Public art education is an important part of quality education in higher medical schools and helps to improve the overall humanistic qualities of medical students (Shao & Pan, 2018). Teaching activities based on film, television and auditory materials are a method of art education carried out with the help of visual thinking theory.

In 2020, the official WeChat of People's Daily launched a 28-minute documentary in English and Chinese, "Life and Death in Jinyintan", which slowly unfolds in a narrative way with real clinical scenes as the background, telling a story between medical staff and patients with novel coronavirus pneumonia. The content of the video are real clinical scenes and conversations, which moved countless people to tears after watching the video. The realistic visual and auditory stimuli of the documentary itself have an impact on medical students' professional perception and career identity to a certain extent, while being able to resonate with them in some way.

Objects and Methods

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Subject of Study

Using purposive sampling method, a total of 40 students from the online experimental teaching class of 2019 nursing freshman 1 were selected for the study during the epidemic in March to April 2020 (N101-N140). The viewing and explanation of the documentary film "Life and Death in Jinyintan" in English and Chinese was used as an example.

Inclusion Criteria: (1) First-year students, first exposure to professional courses in nursing. (2) First exposure to professional knowledge and skills, and the ability to express their opinions correctly in writing. The sample size was "saturated" with information.

Exclusion Criteria: non-online instructional classes that do not meet instructional objectives as required.

Research Methodology

Analysis of Qualitative Information. Explain to students the form and content of the after-school assignment, submit it voluntarily and promise that their reflections will be kept confidential.

The personal perceptions data were collected and the documents were imported into the qualitative analysis software Nvivo12 and analyzed using the seven-step analysis of phenomenological data. The data were read and analyzed by two researchers to code and pool recurring content and distill relevant themes.

Results

A total of 40 students submitted their personal reflections, which were imported into the Nvivo12 software and numbered by academic numbers N101 to N140. After data analysis, the impact of visual and auditory resources on the professional perceptions and emotions of nursing students was categorized into four.

Theme 1: Understanding the Clinical Nursing Work Environment

1. Clinically Realistic Work Situations

The essence of situational teaching is to incorporate knowledge into the situation and promote the active participation of nursing students, so as to significantly improve the teaching effect. Through the reproduction of clinical scenes, students can organically combine single theoretical knowledge with actual clinical work, so as to better apply it into practice (Yang & Liu, 2014). The clinical work scene in the video was in Wuhan Jinyintan Hospital, where the epidemic was most concentrated and serious at that time. The working environment and the medical staff are highly demanding, the medical staff are wearing protective clothing, and the patients in the hospital are mostly patients with respiratory symptoms. The situation reappearance of isolation ward can help students comprehensively understand the application scenarios of professional knowledge and objectively enhance their mastery of theoretical skills. The students explained the real situation they saw after watching the audio-visual materials.

N106: In this real footage, I saw the old man who was worried about not being able to pay the consultation fee, the father who wanted to die in pain, the patient who was fine in the morning and could not be resuscitated in the afternoon. A scene made me feel how fragile life turns out to be. But love and hope spread far more quickly than the virus. The doctor who comforted the patient who had no hope for treatment, the young doctor who promised to wait for the end of the epidemic to bring support medical staff to play in Wuhan, the head nurse aunt who temporarily disguised herself as a "barbershop Tony" to give haircuts to others ... each of them is working hard, facing the choose to do well in the face of illness. The patients are actively cooperating with the treatment, full of hope for tomorrow; the doctors are doing their job, warming each patient with warmth.

N111: This documentary clearly shows us the actual working conditions of health care workers in a real epidemic. Because of the condition, sometimes the patient's blood vessels are not easy to find.

N116: In the hospital, there is a grandfather who is in so much pain that he does not want to live, an old father who is afraid of not being able to pay for treatment, a woman who is having a nervous breakdown, patients of all kinds; "Life and Death in Jinyintan" records in subtle but realistic images the daily life of the medical staff running against death in the heart of the epidemic.

N125: The critically ill patient in the intensive care unit in a coma, the patient who has been in treatment for too long lying in pain on a bed, and the patient who has given up inside and does not want to cooperate with the tests.

2. Job Content of Clinical Nursing Staff

Nurses take on the heavy responsibility of getting up early and staying in the dark, facing life and death they are under the double pressure of body and mind. Occasional leisure and talking with family members are the best relaxation for body and mind. They did their job as healers, trading the truth for the truth. The movement and static conversion of the camera truly records the daily work of the medical staff.

N107: The medical staff insisted on doing their best to save the lives of patients by their actions. Everyone strives to save the lives of patients, even when death is unpredictable. Tears are not worth the effort, only action. The medical and nursing staff and the patients are there for each other, cheering each other on and waiting for the light to come.

N116: Calm words, shaky camera, busy figures, heavy breathing.

N127: In the early hours of the morning, they (medical staff) have started their day. They did everything meticulously, even though they put two layers of protective clothing on them and taped the edges. Facing the departure of one life after another, the pressure of nursing staff is very heavy, which is not only the physical pain, but also the mental torture. Red marks from face masks, wet clothes, exhausted medical staff working for dozens of hours...

N127: What makes nurses great is that even though they are under great pressure, they still do not give up

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hope, but treat everything with optimism. Spare time for their patients to shave their hair, although not a professional hair stylist, but also seriously shave a good "hairstyle"; talk with patients; help patients eat; help the patient to walk patiently; send videos to family members; enlighten the patients who have lost hope, and let them rekindle the hope of continuing to live...

N137: They (medical staff) are racing against time, even resting in the corridor. They often wear goggles for a day, and sometimes they crack.

N140: In the documentary, many patients have negative psychology, and the medical staff give them comfort and encouragement.Feed them and drink water and do your best to take care of them. Medical attention should be given to patients when they are unwell or unusual.They tried their best to help the patient recover. It's their courage, their perseverance. To get more and more people back to health!

Theme 2: Knowledge, Competence, Psychological and Emotional Integration within the Nursing Profession

1. Professional Awareness is Increased

Choosing the nursing profession is not necessarily the first choice in the entrance examination, and the understanding of the nursing profession has gradually deepened through the study of visual and audio materials. The essence of the nursing profession is not only the mere technical support of giving injections and fluids, but also the patience and loving teaching in the face of menial tasks, and the bravery and perseverance in the face of danger.

N111: In the documentary, I met what we usually learn and what I am learning now is laying the foundation for future care. The video shows the real condition of the patients and the importance of the work of the health care workers. As a health care worker, you need to treat not only the physical illness of the patient, but also the mental illness of the patient, and you need to open up to the patient and help them recover their physical and mental health.

In the documentary, I also saw how hard healthcare workers work, they need to be aware of the condition of the patients at all times and be prepared to deal with emergencies at any time. Watching the documentary gave me a deeper understanding of healthcare workers and a further appreciation of healthcare work.

N112: In the documentary, I saw the responsibility and hard work of being a medical worker, they are happy because the patient's condition has improved, looking at the back of the patients discharged from the hospital and weeping silently; they also work hard because of the patient's condition, even their wives have no time to accompany them in childbirth; isolation suits can not be used once, they seldom eat and drink water to save isolation suits to reduce the number of trips to the bathroom; there are also occasionally, when they take a break, they make a phone call to their families to report their safety and play mobile games to relax... This is a true picture of the daily life of medical workers, and it is also a true picture of the millions of medical workers who are standing on the front line of fighting the epidemic, silently paying, regardless of gains and

losses, and physically practicing the responsibility and commitment of being a medical worker. They are the first line of battle in the fight against the epidemic, and they are not afraid of hardship and danger.

N112: The so-called white angels are just a group of children who change their clothes and follow the example of their predecessors, snatching people from the "dead" and fighting against the disease.

N127: The documentary tells us what happens on the front lines of the fight against the epidemic, where the daily routine is almost boring, but every day is a new mood, and they face each day with the most optimistic and positive attitude.

N137: As a nursing student, I felt the pressure and the responsibility on my shoulders when I saw them put on layers and layers of protective clothing, isolation suits, masks, goggles, ventilation facilities and other countless protective facilities, and join in the medical care for more than ten hours a day.

N140: Talking to a friend, he asked me what my major was, and I said, “Nursing,” and introduced him with great pride that nursing includes a lot more than just shots. In fact, when I first studied this major, I also thought that the routine work of nursing was only injection, but later, after continuous study, I gradually improved my nursing work, it was only after this new outbreak of pneumonia that I began to have respect for the profession.

2. Professional Thinking is Enhanced

What is the nursing profession? What are your responsibilities as a student? What should I work on? What should I focus on in my professional studies? Professional learning is not only about knowledge and skills, but also about humanistic and family values, learning to be grateful and appreciative.

N125: After watching the video, I suddenly felt some inexplicable shame. In the eyes of outsiders, the front line of the fight against the disease is undoubtedly hard work, but never personally. There are critically ill patients in intensive care who are in a coma, patients who have been in pain for too long, and patients who have given up and are unwilling to cooperate, all of whom are in need of medical and psychological care, both physical and psychological.

N132: This documentary also inspired me to learn professional knowledge, enhance psychological quality and practical ability... a good medical staff should not only know professional knowledge, although this is the foundation, but must learn solid. Only with a strong professional knowledge in the face of patients can be quick response, skilled to solve every problem.

3. Professional Self-confidence is Enhanced

Role models not only set a benchmark for us to learn from, but also inspire self-confidence and motivation for professional learning.

N103: The beloved academician Zhong Nanshan fought the epidemic again at the age of 84, "We are not afraid

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of death. As doctors, we have nothing to fear in order to recover our patients." These words are awe-inspiring, and we express our heartfelt gratitude to each and every health care worker who fought on the front line.

N116: When one has cried and laughed, one realizes that "Life and Death in Jinyintan" records life and death, the everyday, the collision of life and life, the greatness in the ordinary. With subtle but realistic images, "Life and Death in Jinyintan" records the daily lives of medical personnel running with death in the heart of an infected area, interpreting true greatness with quietness.

4. Professional Learning is more Determined

Students in their freshman year have little understanding of the profession and are still confused. By understanding the nature and content of the profession, they will be able to firmly pursue the path of nursing, which is hard and long, but as long as they love it, it is enough.

N111: What we are learning now is laying the foundation for nursing in the future, and I need to work harder to learn the expertise in the future.

N118: I should try to learn the basics so that they can be useful in future practice and fight for time against death in emergencies.

N132: Inspires me to study my professional knowledge well and enhance my mental and practical skills, and our most important task now is to study hard. Use the epidemic as a teaching material to enrich ourselves, and soon, become that person who can pull others back from the death line.

N137: I will study my professional knowledge and try to be a useful person in my post in the future!

5. Professional Emotions is Deepened

Faced with real scenarios of application of professional knowledge, they have a better understanding of the connotation and spirit of their profession and a greater love for their profession, and a sense of professional pride is born.

N106: Being nursing students, our feelings may have to be more profound. On camera, I saw real scenes that I had never seen before. These real scenes were more touching but also more heartwarming than I could have imagined.

N110: Finally, I just want to express my personal respect for the medical staff. The heroes were great, but the great ones were also the medical staff who fought bravely in this war without smoke.

N127: The red marks pressed out by the masks, the clothes soaked by the isolation suits, the bodies exhausted by dozens of hours of continuous work...are the sufferings endured by the health care workers, moreover, the signs of their heroes. Nearly three months of the epidemic, the hardest than these health care workers, a petition, they righteously rushed to the forefront of the fight against the epidemic, give up time with their

families, put down their loved ones to take care of people who have never met but infected with pneumonia, tribute – to these most lovely health care workers!

N132: The documentary has once again enhanced my admiration for healthcare professionals.

N140: I remember a documentary with an older man who lost his mind and said to the doctor, "Don't treat it, I think it's hopeless." The doctor then kindly and gently and patiently said to him, "How can it be hopeless, so many of us are with you in your treatment, your friends and family are waiting for you and hope you will recover and go home soon. You can't give up yourself, go for it! I was really touched."

6. Professional Integration is Enhanced

In addition to the good physical quality and intellectual ability of nurses, comprehensive quality and humanistic cultivation are the embodiment of personality and professionalism shown by medical personnel at work.

N118: In the documentary, some patients wanted to take a light life because of the pain caused by their condition, and the worker stopped him in time and patiently persuaded him. It struck me that apart from physical care, patients also need spiritual care. And nurses themselves should also do their own inner guidance, in order to concentrate more on the state of work. Therefore, in my future study, I also need to pay attention to my own inner world.

N125: The anti-epidemic work tested the professional ability of nurses even more because they wore protective clothing and gloves. The tense epidemic situation also examined the psychological quality of nurses, and how can it be feasible without excellent ability to work meticulously in a high-pressure environment?

N132: It is the medical staff who patiently relieve patients of the stress of treatment and insist on taking time to talk with them even when they are busy, giving them the confidence to live.

Theme 3: Impact of Nursing Careers

1. Impact on Career

The development of professional emotions goes through several stages of accepting the profession, loving the profession, believing in the profession, and the profession becoming a career. The stimulation of the video can deepen students' understanding of the profession and allow them to first accept it and then slowly develop the emotion of love for it.

N125: After watching the video, I was more determined to pursue my career path in nursing. I was worried whether I would be able to stick to such a hard and safety risky job, but every time I see a short video documenting the work of health care workers, I am deeply shocked and touched by their spirit to.

N127: I can definitely become a good caregiver in the future and make my own contribution to society.

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N140: As a future nurse, I feel a great desire to be in a position to give comfort and support to patients. As the old saying goes, "If you can't be a prime minister, be a doctor." China has a long history and a wide variety of professions, but the only one is pharmaceutics. Angel in white, what a noble title. I yearn for it!

2. Increased Sense of Professional Respect and Pride

With nursing becoming a primary discipline, it has been rapidly developed along with affirmative changes in perceptions in areas such as professional knowledge and skills. However, there are still phenomena such as nurses having a lower status than doctors and not being respected by the society and other low value evaluations, indicating that nurses have negative evaluations of their career value and professionalism and other areas. Nursing is a profession of selfless dedication and saving lives, especially during the fight against the New Coronary Pneumonia epidemic, nurses play a great role, and by using their professional knowledge to help others and gain recognition and affirmation, they not only interpret the meaning of the nursing profession, but also feel within themselves the sense of achievement, pride and value that nursing work gives them (Shi, Li & Zhang, 2021).

N125: "Those who say the stars are bright because you have not seen the eyes of nurses and doctors." During the epidemic I had read this online from a person who had been discharged from the hospital with novel coronavirus pneumonia, and my heart was filled with pride that even though I was still just a student, I had unconsciously subbed myself into the role of a nurse.

N140: In this epidemic, we can see the orderly command of government employees, factory workers working around the clock to produce medical supplies, construction workers scrambling to build the Square Cabin Hospital, and medical staff who are not afraid of difficulties to treat their hearts. They are all brave heroes! But what I admire more is the group of angels in white.

3. Adherence to Professional Conduct and Ethical Boundaries

To adhere to the professional ethics of willingness to dedicate oneself, one must carry the mission of duty on one's shoulders. Nursing staff take on the responsibility of saving lives and helping the injured, and although they are nurses, they always keep in mind professionalism and professional beliefs and ethics, and adhere to the bottom line of their professional ethics.

N117: Perhaps at one moment they were also afraid in their hearts, but their professionalism did not allow them to retreat, their professional ethics did not allow them to give up, they could only move forward. It was their obsession not to give up on every person. They have faced countless times of life and death, but their hearts are still soft.

N132: They actually have pressure in their hearts and want to take a good rest, but his professional ethics tell him that he can t, he must persevere.

N140: They fight every day for fear of any emergency that the patient may not get timely treatment.

Theme 4: Homeland

Family sentiment is the embodiment of a high sense of identity and pride of the social groups to the country they belong to, which not only can make individuals have a high sense of mission to the society, but also is an important force to achieve the great rejuvenation of our nation (Zheng, Zhou & Shi, 2020). Through the epidemic, we can see the unity of the country, the Party and the people, and the determination and confidence of the medical personnel to sacrifice the small for the big, and the national unity to overcome the difficulties together.

N103 We must also have faith, believe in science, not believe in rumors, not spread rumors, and resolutely implement the various decisions of the Party and the government. We should not only propagate the epidemic prevention and control to other people, but also be responsible for our own health. In the face of the epidemic, we must not panic and scare ourselves; we must trust the Party and the government, believe in science, and have faith.

N117 One side in trouble, eight sides to support, medical personnel from all over the country rushed to Wuhan, but also let me feel the unity of the people of China. Go Wuhan! Go China! These words are not just words, but also a strong belief in China, in research and in medical science.

N140 There is no such thing as a quiet year, but someone is carrying the weight for us, and the rule of China has fully demonstrated his strengths in this epidemic control. China is a country that concentrates its efforts to do great things, and we have worked together as a nation to prevent the epidemic and deliver an answer that satisfies the times. As a young man with ideals and ambitions, how can I not be filled with tears. Thank you to all those who worked silently in the epidemic, we will definitely get better and better! The children of China have the confidence and determination to overcome all difficulties, and the Chinese nation will stand in the forest of nations for a long time.

Discussion

The Role of Film, Television and Listening Materials in Teaching

The introduction of rich video and auditory materials in medicine can make students gain rich, concrete, vivid and imaginative perceptual knowledge, which can dispel the fatigue caused by transitional lectures in the classroom, impress students more profoundly, stimulate their interest and motivation to learn, and inspire positive inquiry behaviors to occur (Lu, Yang & Gao, 2011). The uniqueness and visual impact of visual and auditory materials can produce rich visual imagery of clinical medicine in students' minds, and it is when students are learning new medical concepts and laws and solving medical problems that continuous and clear medical contexts are created in their minds (Lin, 2011). In medical teaching, students should feel as much as possible the "real" process of the development of various specific diseases, to enrich their visual imagery reserves, so as to form a certain visual thinking. Visual imagery is the "cell" of visual thinking, and the accumulation of visual imagery is the foundation of visual thinking.

Visual thinking is an exploratory content that originates from vision, perception; visual thinking has the

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flexibility to use intentional operations; visual thinking is induced in the process of generation, thus, to a certain extent, evoking the unconscious mind of the subject (Lu, 2016). Researcher Lu Yanqin (2016) believes that clinical medicine has spatio-temporal, situational, model, and graphic imagery, and that these visual imagery are scenarios constructed by changes in the location of physiological phenomena, pathological phenomena, and basic processes at a certain moment, and to a certain extent by presenting objective features, as well as imagery consisting of teaching models used in teaching and graphic problem solving made by students. These images need to be constructed in the brain in correlation with each other, and at the same time need to be observed, analyzed, studied, to achieve a multifaceted thinking of the problem, and finally to make the correct conclusion, the process of visual imagery forming visual thinking.

The development of visual thinking in students can gradually strengthen their knowledge of professional knowledge, and through the full combination of dynamic and static thinking, students can present a dynamic form of thinking that allows them to more fully discover what is wrong and develop effective treatment plans in the process of medical problem analysis (Lu, 2016).

Visual thinking strategy (VTS) is a narrative teaching method that helps students combine thinking and communication skills while working collaboratively to solve problems through observation, reasoning, and representation (Housen, 2002). It is a student-centered approach to teaching thinking, communication, and visual literacy skills (Dong & Zhou, 2021). VTS was first proposed by Abigail Housen, a cognitive psychologist who studied human cognitive processes and concluded that the use of verbalization of vague ideas in the early stages of cognition and group discussion would be very beneficial in accelerating and deepening the cognitive process. The application of VTS can help nursing students improve their professional observation and communication skills, change their thinking patterns and improve their visual literacy. The VTS teaching method has been proven to be effective in improving all aspects of clinical observation, emotional cognition, and teamwork of medical students and interns. It is suggested that there is great scope for the use of this tool in the field of medical teaching (Shao & Pan, 2018; Cheng, Ning, Li, Zhao, Wu & Jin, 2020).

The three stages of VTS teaching are: describing what is seen when there is no explanation, carefully describing and explaining the affairs seen, and explaining the essence of emotion (Cheng, Ning, Li, Zhao, Wu & Jin, 2020), the close combination of film and video, listening materials and VTS can make the stimulus and response of learning occur connected (Lu, Yang & Gao, 2011), improve the teaching effect, stimulate students to generate interest in learning, at the same time, teachers under the guidance of visual thinking strategy, actively carry out guided teaching can give full play to students' initiative and exploration, provoke students' discussion, induce students' thinking, and improve students' professional emotion.

In today's rapidly developed Internet and information technology, a variety of media provide the public with rich and diverse audiovisual materials, and modern film and television media play a great influence with their unique strength. The appropriate and exact use of excellent and typical film and audio materials as cases for medical teaching in teaching has a role that cannot be ignored. The value of film, television and audio teaching is in line with the cognitive rules of adolescents, achieving positive classroom interaction, realistic reproduction of the medical consultation and treatment scene environment, and can play an important role in teaching (Lu, Yang & Gao, 2011).

Film, Television and Listening Resources Can Enhance Students' Professional Perceptions and Emotions

Some researchers believe that the application of film and television materials can stimulate students' interest in learning, improve the effectiveness of classroom teaching, promote students' understanding of professional characteristics and enhance professionalism (Feng & Zhang, 2015). The shocking power of medical film and television materials is beyond the reach of conventional moral lectures, especially some targeted visual and auditory materials point directly to the heart of the viewer, and sometimes the moral power is more likely to touch students' hearts and resonate after the comparison of positive and negative film and television materials, giving students the opportunity to think about the handling of nurse-patient role relationship in nursing work.

In this study, the selected audio-visual materials were used as an example to analyze their impact on the cognition and emotion of nursing students, the flowing visual and audio elements in the images can stimulate the students to combine the textbook theory, skills and the clinical context of the video, and at the same time link the context experience. When entering the clinical situation, it will trigger the corresponding nursing behavior response, consciously learning the knowledge, skills, communication, behavior. The audio-visual materials lead the students to observe the thinking, emotion and behavior, and realize the complexity of the comprehensive application of nursing skills in the real scene.

Based on visual thinking theories and strategies that address the specificity of students' first making clinical knowledge and skills, students are helped to build mental cognition to embrace the profession. Animation within visual and auditory materials provides just the right channel for students to build professional cognition. The content of the animation of visual and auditory materials often maps and reveals the thoughts and connotations of the creator, who integrates his own understanding of life and psychological and emotional exploration and contemplation into the metaphorical imagery and structure of the video materials as a visitor or viewer, and realizes the communication of his own ideology and emotion through the expression of images, sounds, colors and other formal languages (Wang, 2021), and the audience (students) based on their The subconscious emotions and feelings are opened up with the development of the plot, and the viewer (student) is able to look inside in a "dream-like" state based on his or her own emotional experience, from "watching the story" to "my future story". The subconscious emotions and feelings are opened up with the development of the plot. The interaction between the audiovisual material, the creator and the audience creates a state of mind from the mobilization of the viewer, changes the view and attitude towards the nurse or the profession, reconnects with the profession, evaluates oneself, and builds a new cognitive structure, eventually reducing the disturbing thinking of giving up the profession or even not understanding the profession, and regaining self-confidence in the profession and the occupation. The elements of patriotism, collectivism and selflessness reflected in the videos vary from one audiovisual material to another, and it is more important to distinguish the "true" from the "false" when choosing audiovisual materials and to remove the false from the true.

In conclusion, the art and art education method of film and listening based on the theory of visual thinking can play a positive role in the learning process of students. This teaching method requires strict teaching design, overall teaching planning, mastering students' learning characteristics, etc. In the process of teaching implementation, it is necessary to design teaching problems, group discussions and carry out problem

https://doi.org/10.37420/j.cer.2021.061

guidance according to the basic situation of students. Also the moral and humanistic education throughout the audiovisual material is the basis for the selection of the audiovisual material.

Funding

This paper is supported by the following two projects:

[1] Henan University of Science and Technology School-level Educational Reform Project in 2019: Research on the Impact of Structured Break Mode based on Audiovisual Resources on Nursing Students' Professional Emotional Cognition [No. 2019YB-067];

[2] Henan University of Science and Technology SRTP Project in 2021: Research on the influence of film and audio materials based on visual thinking theory on professional identity and emotion of nursing undergraduate students [No. 2021352].

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