**Preparation Outline Template**

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| **Header**  **Title:**  Change Your Life with Virtual Reality  **General purpose:**  To inform virtual reality technologies and applications.  **Specific purpose:**  To show what is Virtual Reality, how it works, and how it changes our lives.  **Central idea:**  Virtual Reality is changing our life  **Organizational pattern:**  Topical order |
| 1. **Introduction**   1.1 Welcome:  Good morning, everyone. It is a great honor to speak here today.    1.2 Self-introduction:  My name is Chen Long from Software School, as well as my colleague. We are going to talk about a new-generation technology – Virtual Reality.    1.3 Topic:  Today, we’d like to show you what is Virtual Reality, how it works, and how it changes our lives.   1. **Attention-getter:**   Have you ever been afraid of the roller coaster due to the security issues or you get very dizzy in high place? Or cannot make the time for shopping, but the dress you bought online always misfits you?  Now, with the help of Virtual Reality, you can enjoy yourself taking roller coaster without getting too high; or transform your living room into the fitting room, try on everything you like and make the best choice.   1. **Thesis statement:**   Virtual reality is a computer technology that replicates an environment, real or imagined, and simulates a user's physical presence and environment to allow for user interaction.  Virtual Reality is much more than just a headset that can only display computer-generated videos.  In fact, everything that we know about our reality comes by way of our senses. In other words, our entire experience of reality is simply a combination of sensory information, and our brains sense-making mechanisms for that information. It means that if you can present your senses with made-up information, your perception of reality would also change in response to it.  You would be presented with a version of reality that isn’t really there, but from your perspective it would be perceived as real. Something we would refer to as a virtual reality.   1. **Preview of the main points：**   By presenting an overview of Virtual Reality, I hope to give you a better intuition of Virtual Reality and its application.   1. **Transition:**   Then we will explain in detail on how Virtual Reality works and how it can be used for different fields. |
| **Body**  In this part, we will explain the technology of Virtual Reality, and how it can be applied to education, military, communication and many other fields, finally, we will analyze the limitations of Virtual Reality.   1. **First main point:**   Technology of Virtual Reality,  **Evidence:**  How does VR work? Let’s start with some basics.  The best VR experience is the total immersion that we forget the computer, headgear and accessories and act exactly as we would in the real world. So how do we get there?  Basically there are three subsystems that work together.  HEAD TRACKING  Head tracking means that when you wear a VR headset, the picture in front of you shifts as you look up, down and side to side. A system called 6DoF (six degrees of freedom) plots your head in terms of your x, y and z axis to measure head movements forward and backwards, side to side and shoulder to shoulder.  MOTION TRACKING  When you look down with a VR headset on, the first thing you want to do is to see your hands in a virtual space. Many sets of prototype wireless controllers are designed to make you feel like you are using your own hands in VR.  EYE TRACKING  Generally, there will be an infrared sensor monitor inside of the headset, so it knows where your eyes are looking in virtual reality. The main advantage of this is to make depth of field more realistic.  **Transition:**  Now that we know how VR device works, we can move on to various application that VR has effect on.  Hello, everyone. I am Yao Youyang from Software School. I’d like show you various VR applications.   1. **Second main point：**   Applications of VR  **Evidence:**  As you can see from ChenLong’s presentation, VR has a lot of practical purposes outside of gaming and has been used for education, medical care, military training, manufacturing and so on.  All of these fields benefit from VR’s simulation and entertainment.  In education area, virtual reality is adopted for teaching and learning situations. The advantage of this is that it enables large groups of students to interact with each other in a three-dimensional environment. Also, it’s able to deliver the difficult knowledge to students in a funny and simple way. What’s more, students can avoid real world consequences of failing when they develop their skills.  Healthcare has become one of the biggest adopters of VR – using it in surgery simulation, medical scanning and virtual robotic surgery.  For surgery simulation, simulated surgeries allow surgeons to practice their technical skills without any risk to patients.  For medical scanning, manipulable 3D scans of patient’s bodies can help diagnose problems closely and clearly.  For virtual robotic surgery, surgery is performed by means of a robotic device which controlled by a human surgeon. It can not only improve the accuracy but also largely reduce the time and risk.  Virtual reality has also been adopted by the military.  VR simulation is useful for training soldiers for combat situation or other dangerous settings without the risk of death. It put soldiers in a safe environment while simulating all possible situations and enemies. Moreover, it can be used to simulate military equipment. Take the air force as an example, Flight simulators can be used to teach flying skills and how to dill with an emergency.  **Transition:**  Now we have already discussed how VR device works and various applications that can benefit from VR.  But It also has some limitations and challenges.   1. **Third main point:**   Limitations of VR  **Evidence:**  The price of VR device is very high. And the VR device is so complex that people should spend lots of time learning to use it. What’s more, there are many health and safety considerations of VR. A number of unwanted symptoms can be caused by VR. For e.g., some users may experience VR sickness when using VR simulation.  **Transition:**  After introducing the technology, applications and limitations on Virtual Reality, now we can conclude for our presentation today. |
| **Conclusion**   1. **Restatement of thesis:**   It does have some limitations and challenges, such as its high price, the complexity of devices and the health problems. Hopefully, the technology is becoming cheaper and more widespread in recent years. We can expect to see many more innovative uses for the technology in the future and perhaps a fundamental way in which we communicate and work thanks to the possibilities of Virtual Reality.  To summarize, Virtual Reality is not only an interactive video that you can enjoy in the headset. It aims at providing people with a bran-new experience of reality that doesn’t really exist.   1. **Review of main points:**   After hearing about our presentation of Virtual Reality, I hope you have an overview of its technology and how it is used in various aspects of our daily lives not only for gaming purpose.   1. **Closing remark:**   VR is deemed as one of the most powerful technologies that will change our lives in the near future.  That’s the end of our speech, thank you for your attention.  If you’d like me to elaborate or clarify anything we covered today, feel free to ask, please.  If there are no further questions, I’d like to thank you very much for your attention. |