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Facilitating career learning in virtual reality: The DOTS model for vocational training and career guidance

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Career guidance, vocational training and VR

Realistic and authentic career learning activities

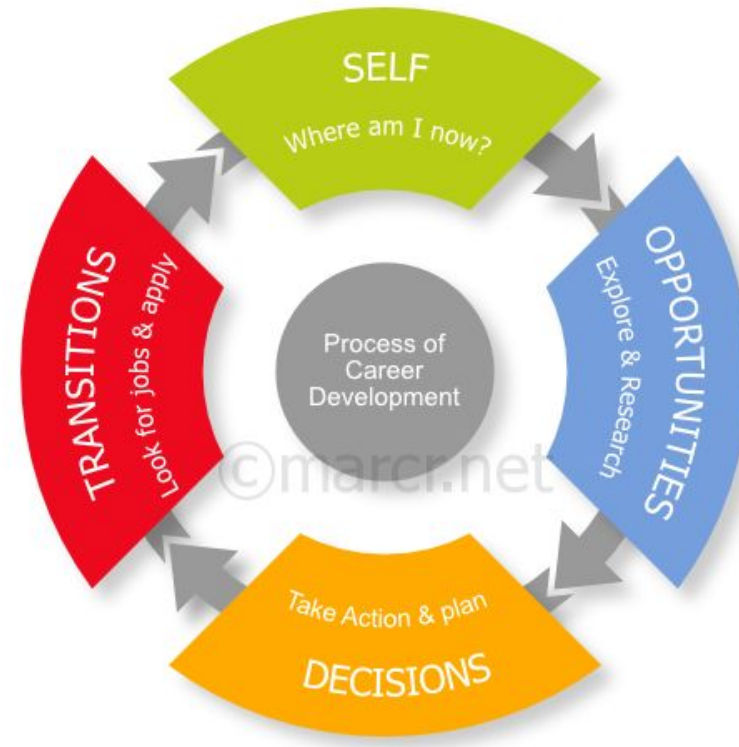
Key elements: Career information, facilitating career learning and career competence

Career guidance and vocational training share many similarities in their use of VR as a career learning tool.

Combining DOTS to VR can offer a structured base for facilitating career learning and developing career competence

Introduction to the DOTS Model

- The DOTS model is a structured framework for career learning and career competence
- Content of career learning and competence
- Motivation for learning: growth mindset
- Purpose of integrating VR with the DOTS Model in Vocational Training



Decision learning competence

- Acquiring the skills and knowledge necessary to make informed career decisions
- Using VR for decision learning: Simulated career scenarios and role play
- **Understanding the decision-making process:**
Objective: Learn about different jobs and understand what factors are important when making a career choice.
Outcome: I have gained greater insight into how to make career decisions.
- **Identifying options:**
Objective: identify career options by considering personal interests, skills, and market demand.
Outcome: I have a clearer understanding of how identifying options improves my decision-making skills.
- **Evaluating choices:**
Objective: Learn how to evaluate and compare different career options effectively.
Outcome: I have gained more insight into the process of evaluating choices.
- **Making informed decisions:**
Objective: Understand how to make decisions based on a thorough understanding of available information, personal values, and external factors.
Outcome: I feel confident in making career decisions that align with my strengths and interests.

Reflective questions

1) Understanding the decision-making process:

- What decision-making strategy did you find most helpful?
- Why did you want to try the Blue Sector app? What did you like about it?
- Which factors are most significant to you when choosing between the Blue Sector, construction industry, or cloud engineering? How do these factors influence your choice?
- Have you learned strategies from using the apps to prioritize your career options based on professional and personal goals?

2) Identifying options:

- Did the apps align with your interests, perceived skills, and the demand for work in the Blue Sector, construction industry, or cloud engineering?
- How well did the apps help you weigh the pros and cons of different career paths?
- Has your decision-making process changed in any way after trying the Blue Sector apps?

3) Evaluating choices:

- If faced with job offers, how confident are you in your ability to evaluate them?
- Do you think you would thrive in the Blue Sector, construction industry, or cloud engineering? Why or why not?

4) Making informed choices:

- After completing the apps, do you feel better prepared to make a career choice? Why or why not?
- Did the different work tasks in aquaculture, construction, or cloud engineering provide insight into your career choices, and did they impact your decision-making process?
- How did the outcomes of your decisions compare to your expectations?

Opportunity Awareness

- Understanding the range of possibilities and knowing how to access them
- Using VR for Opportunity Awareness

- **Exploring career paths**

Objective: Gain knowledge about industries, professions, job roles, and required qualifications.

Outcome: I have a clear understanding of the job market through the apps.

- **Labor market information:**

Objective: Understand trends in the job market, such as in-demand skills, emerging fields, and employment patterns.

Outcome: The apps provided me with sufficient information about the skills needed and what I need to develop.

- **Employer expectations:**

Objective: Be aware of what employers are looking for in terms of skills, experience, and qualifications.

Outcome: I learned the skills and qualifications needed for different roles and industries.

Reflective questions

1) Exploring career paths:

- After trying the apps, which opportunities do you feel more prepared to explore further?
- Were there any opportunities that you had not considered before trying one of the apps?
 - What did you learn about the work environment and job roles in feeding salmon, inspecting fish, and sorting, cutting, and packaging fish? How does this align with your interests?
 - What did you learn about installing and replacing hard drives, and performing updates in cloud engineering? What did you learn from assembling a wall or a wooden frame in the construction industry? Did you discover any unknown skills?

2) Labor market information:

- What insights did you gain from the blue sector industry, construction industry, or cloud engineering?
- How can these insights help you pursue the development of your working skills in this sector?

3) Employer expectations:

- Do you feel confident in identifying the required qualifications for these roles?
- Did you learn the key skills needed for the job?
- Did the feedback on your performance in the different tasks increase your insight into these jobs?
- How did the demanded skills in the construction industry affect your perception of the job?

Transition learning

- Preparing individuals for career transitions
- Using VR for transition learning: Simulated work environments and adaption training
- **Education to Employment:**
 - Objective: Gaining insight into strategies for transitioning from education to the workplace.
 - Outcome: I feel prepared to handle the challenges of moving from education to the workplace.
- **Resilience and Adaptability:**
 - Objective: Developing the ability to cope with change, setbacks, and transitions, such as job loss or career change.
 - Outcome: I am ready to adapt to a new work environment.
- Career progression
- Lifelong learning

Reflective questions

1) Education to Employment:

- Can you rate your confidence in navigating transitions, such as moving from school to work?
- What challenges do you anticipate during the transition?
- How confident are you in understanding workplace expectations based on the apps?
- What are the biggest challenges, and how have the apps helped you address them?
- What areas do you need to improve in order to ensure a smooth transition from VR experiences in the blue sector, construction industry, or cloud engineering to actual physical work experience?
- Did feedback on your performance in the different apps provide any insight into what is important to learn for making the transition easier?
- Did the different tasks in construction or the blue sector help you prepare for the transition?

2) Resilience and Adaptability:

- Do you feel prepared for handling unexpected changes after trying the apps?
- If you have been offered a position, how confident are you in making the necessary adjustments?
- How did you cope with the different tasks and problem-solving challenges in each of the apps?
- How did you manage tasks such as changing hardware or feeding the fish?

Self-awareness

- What are my strength, weaknesses, interests and values?
- Using VR for developing self-awareness: VR self assessment tools, reflective VR exercises and personalized VR experiences
- **Identifying strengths and weaknesses:**
 - Objective: Understand one's abilities, preferences, and areas for improvement
 - Outcome: I have a clear understanding of my strengths and weaknesses
- **Personal values and motivations:**
 - Objective: Reflect on what is important in one's career, such as work-life balance, jobsatisfaction, and personal fulfillment.
 - Outcome: I have a clear understanding of my values and motivations
- **Setting career goals:**
 - Objective: Establish clear, achievable career goals based on self-assessment and align them with broader life goals
 - Outcome: I have a strong sense of my vocational identity and self-awareness

Reflective questions

1) Identifying strengths and weaknesses:

- What are your strongest skills?
- In what way did the apps help you connect to your strengths and interests?
- Describe one insight about yourself that you gained through trying out the apps.
- Do you feel more confident in explaining your career aspirations?
- What was most effective in trying out the apps for identifying your strengths and weaknesses within the blue sector, construction industry, or cloud engineering?
- Did you discover any new skills that you were not aware of?

2) Values and motivations:

- How can you use your strongest skills in the blue sector, construction industry, or cloud engineering app?
- Did feedback on performance give you insight into your skills, motivation, and values?
- How did the different tasks motivate you?

3) Career goals:

- In what way can the blue sector app, construction industry, or cloud engineering increase your self-awareness and vocational identity?

Integrating the DOTS model in VR4VET: Application and considerations

- Application in vocational education and career guidance:
How to include all 4 elements ?
Reflection questions in the apps? questionnaire after? Reflection afterwards?
Need for a structured learning goals
- Real-world scenarios showing successful application of the model.
- How to integrate into educational settings?
- Key considerations:
Curriculum design: objectives, activities and outcomes
Information overload
Evaluation and feedback
Target groups
Reflection level

Thank you!

Any final comments?

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