PEDAGOGICAL CONTENT FOR AI AND EVALUATION

ROLEPL-AI

Project funded by the European Commission within the ERASMUS+ programme under the agreement n° 2023-1-FR01-KA220-VET-000157570

Deliverable 3.2 – Version 1

Type of Activity		
IO	Intellectual Output	**X**
A	Project Management and Implementation	
M	Transnational Project Meeting	
E	Multiplier Event	

Nature of the deliverable		
	Feedback from participants	
	Direct effect on participants and project partners	
	Practical & reusable resources for the practitioners	
	Research material bringing forward the reflection in the sector	
	Community building tools	
	Partnerships and Cooperation	
	Dissemination material	
	Organizational and working documents	**X**

Dissemination Level		
PU	Public	**X**
CO	Confidential, only for members of the consortium (including the Commission Services)	

ACKNOWLEDGEMENT

This report forms part of the deliverables from a project called "ROLEPL-AI" which has received funding from the European Union's ERASMUS+ programme under grant agreement No. 2023-1-FR01-KA220-VET-000157570. The Community is not responsible for any use that might be made of the content of this publication.

This project aims at training soft skills remotely, by pushing the practice through the implementation of AI-based simulation.

The project runs from September 1st, 2023, to August 31st, 2025 (24 months), it involves 5 partners (Manzalab and Inceptive, France; VUC Storstrøm, Denmark; Fachhochschule Dresden, Germany) and is coordinated by Manzalab.

List of participants

Participant No.	Participant organisation name	Acronym	Country
1 (coord)	Manzalab	MZL	France
2	Inceptive	ICV	France
3	VUC Storstrøm	VUC	Denmark
4	Fachhochschule Dresden	FHD	Germany

CONTENT

Abbreviations

[AI] Artificial Intelligence
[AVU] General adult education at lower secondary level (in Danish almen voksenuddannelse)
[CFO] Chief financial officer
[SME] Small and medium enterprises
[TA] Transactional Analysis
[TKI] Thomas-Kilmann Conflict Mode Instrument
[VET] Vocational education and training

1 INTRODUCTION

1.1 OVERVIEW

In addition to the definition of the use cases, and following the requirements identified in T2.3, this task focused on the production of pedagogical content needed to train the AI. The material was partly based on existing resources provided by the partners, but was also complemented by newly developed content specifically designed for the ROLEPL-AI simulations.

Each set of pedagogical content was subsequently evaluated by the VET partners. The evaluation aimed at assessing both the quality and the didactic suitability of the material, as well as the complexity of its production. This approach made it possible to determine the level of effort required to generate training material and provided an indication of how easily such simulations can be set up in different institutional contexts.

The results of these evaluations fed directly into Work Package 5, informing the design and implementation of the experimentation phases. Feedback from both educators and learners confirmed the relevance and pedagogical value of the AI content, while also identifying areas for improvement, such as ensuring contextual accuracy and diversifying scenario types. This iterative evaluation process thus contributed to the refinement of the ROLEPL-AI platform and strengthened its potential for transfer and scalability.

1.2 DELIVERABLE POSITIONING

Deliverable 3.2 is based on a structured set of pedagogical and situational content developed specifically for the ROLEPL-AI simulation. Its main contribution lies in providing all relevant data required to train the AI component. This includes detailed conflict scenarios, persona profiles (e.g., job fair guests, booth employees, staff members), and contextual information about participating companies. Together, these datasets enable the AI to engage in realistic, role-based interactions and support the development of a simulation environment that is both authentic and pedagogically meaningful.

The deliverable is directly connected to the tasks related to AI training and its use in simulation-based learning sessions. The role-playing scenarios rely entirely on this content, ensuring that interactions are grounded in realistic contexts and aligned with educational objectives.

In addition, Deliverable 3.2 builds on and extends the learning goals defined in D3.1. The job fair was deliberately chosen as the central simulation scenario because it represents a familiar and highly relatable environment for learners. It offers a realistic setting in which communication, conflict resolution, and collaboration skills can be practiced without the complexity of long-standing personal or organizational dynamics. The inclusion of companies reflects both local economic structures and sectoral diversity, ensuring that learners encounter authentic professional contexts and a broad range of interaction scenarios.

The process of content creation involved the systematic design of personas, companies, and conflict templates, guided by pedagogical inputs to ensure

alignment with defined learning outcomes. Metadata and contextual descriptions were continuously adapted, expanded, or refined to strengthen realism and learning relevance.

In this way, Deliverable 3.2 provides the pedagogical foundation for AI training, while ensuring that all simulated scenarios contribute directly to the acquisition of targeted competencies and the overarching objectives of ROLEPL-AI.

1.3 PRESENTATION

This deliverable is structured to provide a clear overview of the development and evaluation of the pedagogical content for AI training within the ROLEPL-AI project.

- The report begins with a **presentation of the objectives and general context**, outlining the purpose of Deliverable 3.2 and its connection to the project's learning goals.
- The next section presents the **FHD contributions**, documenting the process of creating the company profiles, character datasets, and conflict scenarios. This includes insights into how local industries and curricular inputs shaped the authenticity and pedagogical value of the material.
- The following section highlights the **VUC contributions**, which similarly describe the design of characters, companies, and conflict scenarios, with a focus on local relevance and applicability to their educational context.
- The deliverable concludes with a **summary and conclusion**, reflecting on the outcomes of the development process, the evaluation by partners, and the added value of the material for training AI systems and supporting learners.

1.3.1 Design and Composition of the Company Dataset

In designing the dataset of companies used within the simulation, the objective was to reflect a broad and representative spectrum of the partners countries economy. This included the deliberate selection of key industries such as the automotive sector, logistics, and finance, as well as illustrative examples from the service sector. To account for current technological developments, a company from the semiconductor (chip) industry was also integrated into the dataset.

Beyond the sectoral diversity, particular attention was paid to the variety in company size and structure. The dataset includes start-ups, medium-sized enterprises (SMEs), and large corporations, in order to simulate a realistic range of employer profiles typically found at job fairs in partners countries. This diversity ensures that the simulation can present learners with a wide array of interaction scenarios, organizational cultures, and role expectations—providing a rich and authentic training environment aligned with real-world conditions.

1.3.2 Design and Composition of the Character Dataset

To ensure realism, consistency, and pedagogical relevance within the simulation, each character was developed based on a standardized template. This dataset includes three core character types: **exhibitors**, **job seekers**, and **staff members**, each designed to reflect authentic roles typically encountered at a job fair.

Every character profile follows a structured format including the following elements:

- **Name**
- **Gender (Male/Female)**
- **Fair Relation** (1: Exhibitor, 2: Staff Member, 3: Job Seeker)
- **Background** (biographical and professional information)
- **Specific Character Traits** (e.g., communication style, goals, strengths)
- **Relations with Other Characters** (optional, one line per relation)

1.3.3 Why the Job Fair Scenario?

The job fair was chosen as the simulation scenario because it is highly relatable for the target group, who are likely to be familiar with this setting and can easily immerse themselves in the roles. It offers a **realistic and accessible context** that supports active engagement.

Additionally, a job fair provides an ideal environment to address the defined **learning goals**. Interactions and conflicts in this setting are typically **situational and information-based**, rather than rooted in long-standing personal dynamics or organizational history. This makes it easier to focus on key competencies such as communication, conflict resolution, and professional behavior—without the complexity of deep personal or emotional entanglements.

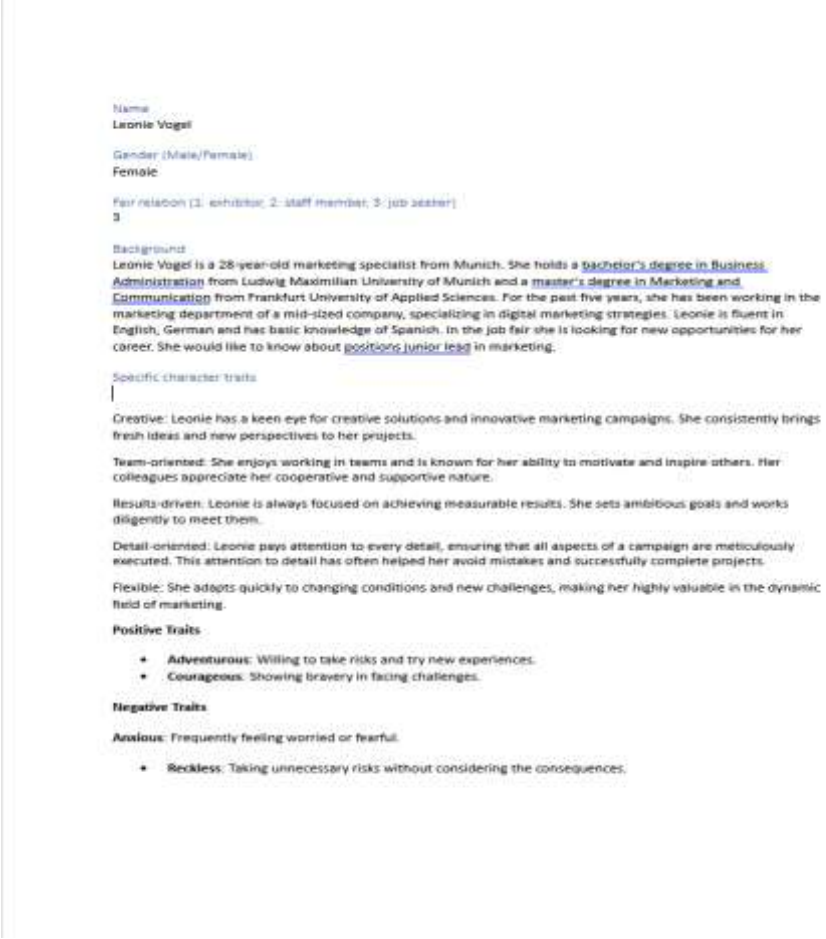
2 FHD Contributions

2.1 Development of Personas

When FHD designed the personas representing **exhibitors, job seekers, and staff members**, particular attention was paid to ensuring that the target group could either **identify with the characters or establish an association** with them. To achieve this, personas were created to fit each respective category and sectoral background.

For the selection of names, the team drew on the **100 most common first and last names in Germany**, while also integrating names from other linguistic and cultural backgrounds. This approach ensured both authenticity and **representation of societal diversity**.

In addition, the **professional backgrounds** of the personas were aligned with the industries represented by the fictitious companies developed within the project, thereby reinforcing the realism and practical relevance of the scenarios.



Name
Leonie Vogel

Gender (Male/Female)
Female

Fair relation (1: exhibitor, 2: staff member, 3: job seeker)
3

Background
Leonie Vogel is a 28-year-old marketing specialist from Munich. She holds a bachelor's degree in Business Administration from Ludwig Maximilian University of Munich and a master's degree in Marketing and Communication from Frankfurt University of Applied Sciences. For the past five years, she has been working in the marketing department of a mid-sized company, specializing in digital marketing strategies. Leonie is fluent in English, German and has basic knowledge of Spanish. In the job fair she is looking for new opportunities for her career. She would like to know about positions junior lead in marketing.

Specific character traits

Creative: Leonie has a keen eye for creative solutions and innovative marketing campaigns. She consistently brings fresh ideas and new perspectives to her projects.

Team-oriented: She enjoys working in teams and is known for her ability to motivate and inspire others. Her colleagues appreciate her cooperative and supportive nature.

Results-driven: Leonie is always focused on achieving measurable results. She sets ambitious goals and works diligently to meet them.

Detail-oriented: Leonie pays attention to every detail, ensuring that all aspects of a campaign are meticulously executed. This attention to detail has often helped her avoid mistakes and successfully complete projects.

Flexible: She adapts quickly to changing conditions and new challenges, making her highly valuable in the dynamic field of marketing.

Positive Traits

- **Adventurous**: Willing to take risks and try new experiences.
- **Courageous**: Showing bravery in facing challenges.

Negative Traits

Anxious: Frequently feeling worried or fearful.

- **Reckless**: Taking unnecessary risks without considering the consequences.

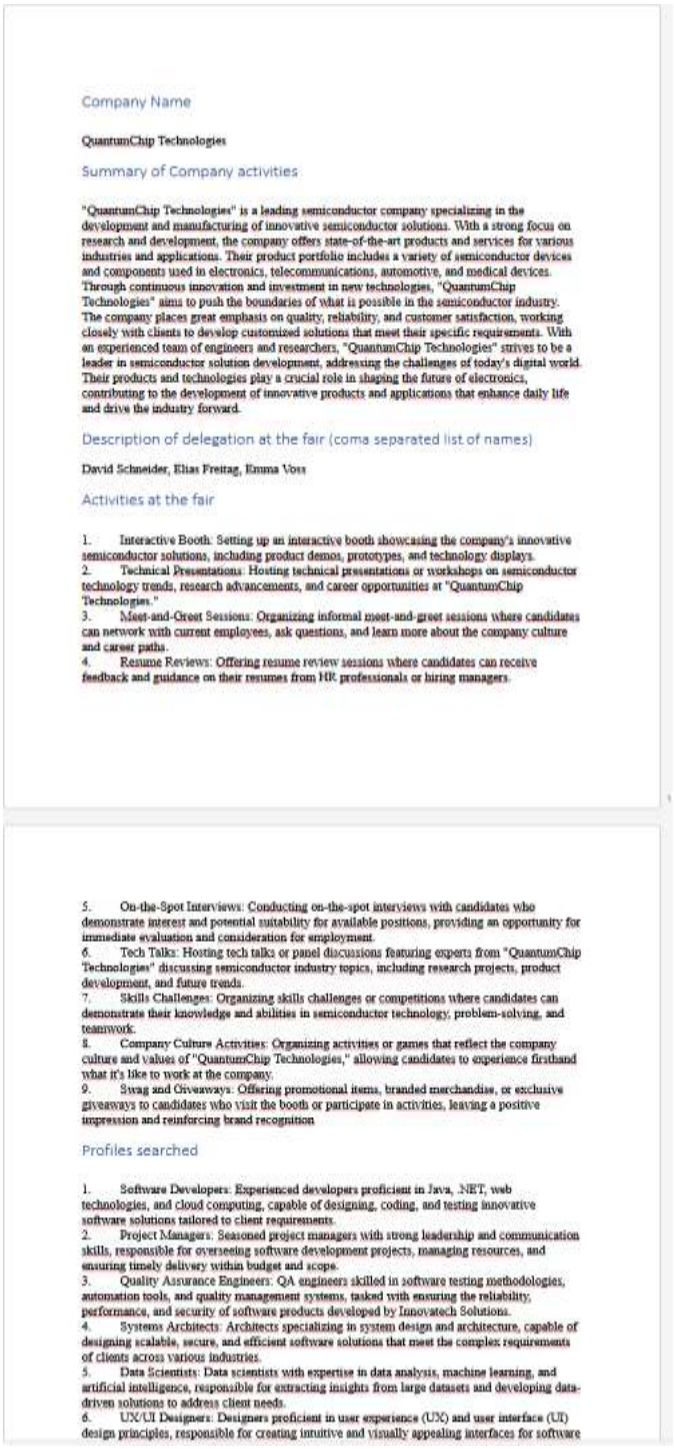
Figure 1 Example of character template

2.2 Creation of Companies

The creation of the fictitious companies used in the ROLEPL-AI simulations was inspired by the regional business landscape of Dresden and its surroundings. Specific reference was made to key industries such as the semiconductor sector and automotive suppliers, which play an important role in the region's economic profile.

In designing the company data, attention was paid to ensuring a balanced representation of large corporations, medium-sized enterprises, and start-ups. This variety reflects the actual economic structure and provides learners with exposure to different organisational contexts.

By drawing on these real-world examples, the fictitious companies were given a credible and authentic background, ensuring that the training scenarios mirror realistic professional environments. This approach not only increased the relevance of the simulations but also strengthened the connection between the virtual training setting and actual labour market conditions.



Company Name

QuantumChip Technologies

Summary of Company activities

"QuantumChip Technologies" is a leading semiconductor company specializing in the development and manufacturing of innovative semiconductor solutions. With a strong focus on research and development, the company offers state-of-the-art products and services for various industries and applications. Their product portfolio includes a variety of semiconductor devices and components used in electronics, telecommunications, automotive, and medical devices. Through continuous innovation and investment in new technologies, "QuantumChip Technologies" aims to push the boundaries of what is possible in the semiconductor industry. The company places great emphasis on quality, reliability, and customer satisfaction, working closely with clients to develop customized solutions that meet their specific requirements. With an experienced team of engineers and researchers, "QuantumChip Technologies" strives to be a leader in semiconductor solution development, addressing the challenges of today's digital world. Their products and technologies play a crucial role in shaping the future of electronics, contributing to the development of innovative products and applications that enhance daily life and drive the industry forward.

Description of delegation at the fair (coma separated list of names)

David Schneider, Elias Freitag, Emma Voss

Activities at the fair

1. Interactive Booth: Setting up an interactive booth showcasing the company's innovative semiconductor solutions, including product demos, prototypes, and technology displays.
2. Technical Presentations: Hosting technical presentations or workshops on semiconductor technology trends, research advancements, and career opportunities at "QuantumChip Technologies."
3. Meet-and-Greet Sessions: Organizing informal meet-and-greet sessions where candidates can network with current employees, ask questions, and learn more about the company culture and career paths.
4. Resume Reviews: Offering resume review sessions where candidates can receive feedback and guidance on their resumes from HR professionals or hiring managers.

5. On-the-Spot Interviews: Conducting on-the-spot interviews with candidates who demonstrate interest and potential suitability for available positions, providing an opportunity for immediate evaluation and consideration for employment.
6. Tech Talks: Hosting tech talks or panel discussions featuring experts from "QuantumChip Technologies" discussing semiconductor industry topics, including research projects, product development, and future trends.
7. Skills Challenges: Organizing skills challenges or competitions where candidates can demonstrate their knowledge and abilities in semiconductor technology, problem-solving, and teamwork.
8. Company Culture Activities: Organizing activities or games that reflect the company culture and values of "QuantumChip Technologies," allowing candidates to experience firsthand what it's like to work at the company.
9. Swag and Giveaways: Offering promotional items, branded merchandise, or exclusive giveaways to candidates who visit the booth or participate in activities, leaving a positive impression and reinforcing brand recognition

Profiles searched

1. Software Developers: Experienced developers proficient in Java, .NET, web technologies, and cloud computing, capable of designing, coding, and testing innovative software solutions tailored to client requirements.
2. Project Managers: Seasoned project managers with strong leadership and communication skills, responsible for overseeing software development projects, managing resources, and ensuring timely delivery within budget and scope.
3. Quality Assurance Engineers: QA engineers skilled in software testing methodologies, automation tools, and quality management systems, tasked with ensuring the reliability, performance, and security of software products developed by Innovatech Solutions.
4. Systems Architects: Architects specializing in system design and architecture, capable of designing scalable, secure, and efficient software solutions that meet the complex requirements of clients across various industries.
5. Data Scientists: Data scientists with expertise in data analysis, machine learning, and artificial intelligence, responsible for extracting insights from large datasets and developing data-driven solutions to address client needs.
6. UX/UI Designers: Designers proficient in user experience (UX) and user interface (UI) design principles, responsible for creating intuitive and visually appealing interfaces for software

Figure 2 Example of company template (extract)

2.3 Creation of Conflict

The development of conflict scenarios for the ROLEPL-AI simulations was informed by both practical expertise and curricular requirements. To ensure realism and relevance, professionals from the tourism sector were consulted and provided insights into typical workplace conflicts and communication challenges.

In addition, module handbooks were systematically reviewed to identify relevant learning objectives that could be translated into scenario design. This dual approach – combining practitioner input with curricular analysis – ensured that the conflicts represented in the simulations are both pedagogically aligned and practically meaningful.

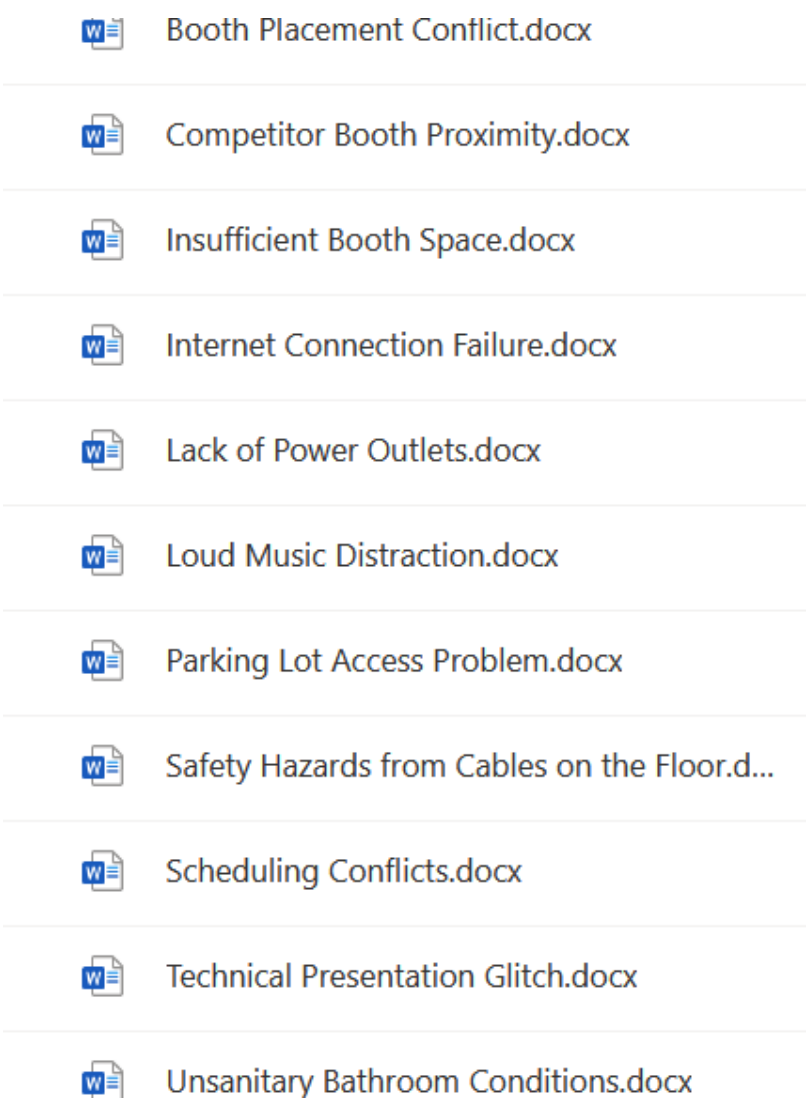


Figure 3 Selection of FHD conflicts

In addition to the creation of templates, metadata were systematically collected to describe the trade fair setting and contextualise the learning environment. The material was continuously adapted, expanded, or selected in order to ensure relevance and alignment with the project objectives. All data creation and refinement processes were guided by pedagogical input, ensuring that the scenarios and resources directly supported the achievement of defined learning outcomes.

3 VUC Contributions

3.1 Character Design for AI Training

In developing the AI training content, the teachers at VUC focused on creating a diverse and coherent set of character profiles that reflect the complexity of real-world interactions at large-scale events such as job fairs and exhibitions. These characters form the backbone of roleplaying simulations, enabling both AI systems and learners to engage in authentic, context-rich scenarios that foster communication, negotiation, and problem-solving skills.

3.1.1 Exhibitors

The exhibitor profiles were designed to represent professionals from various industries, each with distinct roles, motivations, and challenges. Characters such as Lasse Madsen, a strategic CFO from Sonic Precision Design, Lucas Wright, a creative marketing specialist from Adventure Cove Water Resort, and Martin Christensen, a sustainability advocate from Wildhaven Animal Farm, illustrate the diversity of perspectives present at such events. Each profile includes detailed background information, personality traits, and inter-character relationships, ensuring that conflicts and collaborations arise naturally during simulations.

A key design principle was local relevance. The teachers drew inspiration from well-known companies and professional roles in South Zealand and the Lolland-Falster region. This grounding in the local context makes the scenarios relatable and meaningful for learners, while also reflecting the economic and cultural realities of the area. By incorporating both strengths and weaknesses, the profiles encourage dynamic interactions that challenge AI systems to adapt and learners to practice effective strategies in realistic settings.

3.1.2 Job Seekers

The job seeker profiles were crafted to capture the aspirations and challenges of individuals entering or transitioning within the labor market. Characters such as Anita Schmidt, a tourism management student passionate about sustainable travel; Benjamin Clark, an experienced financial analyst seeking opportunities in fintech; and Clara Bjorn, an event management graduate eager to innovate, provide varied contexts for roleplay. Each profile balances positive traits with potential limitations, such as hesitation under pressure or impatience with administrative processes, creating opportunities for authentic conflict and negotiation.

These profiles also emphasize relational dynamics, highlighting connections with other characters to simulate networking and collaborative problem-solving. By situating these characters within a local and professional context, the scenarios help learners develop employability skills while training AI systems to manage nuanced, multi-party conversations.

3.1.3 Staff Members

The staff member profiles represent the organizational core of event management, encompassing roles that require strategic planning, logistical coordination, and vendor relations. Characters like Bo Fisker, a visionary fair

director committed to sustainability; Carlo Frederiksen, a practical and innovative logistics expert; and Ann Petersen, an organized but occasionally rigid vendor coordinator, illustrate the complexity of managing large-scale events. These profiles were designed to simulate high-stakes decision-making and interpersonal challenges, preparing AI systems to support human problem-solving in dynamic environments.

As with the other character groups, the teachers prioritized authenticity and pedagogical purpose. Each profile includes detailed responsibilities, personality traits, and interdependencies, ensuring that simulations reflect the collaborative and sometimes conflicting nature of real-world event management.

3.1.4 Pedagogical Rationale

Across all three groups—Exhibitors, Job Seekers, and Staff Members—the overarching goal was to create characters that are both believable and educationally purposeful. By embedding local relevance, diverse professional roles, and realistic interpersonal dynamics, the scenarios provide a rich foundation for AI-based roleplaying simulations. These simulations not only train AI systems to generate context-aware, role-specific responses but also support learners in developing critical soft skills such as communication, negotiation, and adaptability.

3.2 Companies

To support the AI-based roleplaying simulations, the teachers developed a set of company profiles that provide authentic organizational contexts for the scenarios. These companies were designed to represent a diverse range of industries—hospitality, tourism, renewable energy, wildlife conservation, and entertainment—while maintaining local relevance. Their names and concepts are inspired by well-known businesses in the South Zealand and Lolland-Falster region, though they are not identical, allowing for authenticity and creative flexibility.

The companies include a family-oriented water resort offering immersive attractions, a sustainability-focused tourism destination, a wildlife sanctuary dedicated to conservation, a renewable energy innovator specializing in wind technology, and two entertainment providers—an amusement park and a reptile-themed adventure park. Each company profile outlines its core activities, the delegation attending the fair, booth activities, and the types of candidates sought. This structure ensures that both AI systems and learners have a clear understanding of the organizational context, recruitment goals, and cultural values.

Across these profiles, common design principles guided the development process:

- Authenticity and Engagement: Each company description emphasizes unique features such as VR experiences, interactive models, and live demonstrations at the fair. These elements create realistic scenarios for roleplay, where learners can practice networking, interviewing, and problem-solving in dynamic environments.
- Diverse Recruitment Needs: The companies collectively represent a spectrum of job opportunities, from highly skilled roles in engineering,

sustainability, and animal care to unskilled positions in hospitality, maintenance, and customer service. This diversity allows simulations to address different learner profiles and skill levels.

- Local Inspiration: By drawing on industries and roles familiar to the region, the scenarios resonate with learners and reflect the economic and cultural landscape of South Zealand and Lolland-Falster. This grounding enhances relevance and engagement while preparing learners for real-world professional interactions.
- Pedagogical Purpose: The company profiles are not just informational; they are designed to create opportunities for authentic dialogue, negotiation, and decision-making during simulations. They provide the backdrop for conflict scenarios, character interactions, and role-based challenges that develop critical soft skills such as communication, adaptability, and cultural awareness.

By integrating these companies into the training content, the teachers created a coherent and context-rich foundation for AI simulations. This approach ensures that the learning experience is both realistic and educationally meaningful, supporting the dual goal of preparing learners for the labor market and training AI systems to handle complex, human-centered interactions.

3.2.1 Conflict Templates

The conflict templates were developed to simulate realistic challenges that exhibitors and staff might encounter during large-scale events. These scenarios provide a structured foundation for AI-based roleplaying simulations, enabling both AI systems and learners to practice problem-solving, negotiation, and adaptive communication under pressure. Each template includes a Set Up describing the situation, an AI Catch Up summarizing the AI's perspective, and lists of accepted and rejected solutions to guide decision-making.

Overview of Conflict Scenarios

The templates cover a range of issues commonly faced at expos, grouped into three main categories: booth allocation problems, technical failures, and scheduling conflicts.

- Booth Allocation Issues
  Several scenarios focus on space-related challenges. For example, Adventure Cove Water Resort discovers that its allocated booth space is significantly smaller than agreed upon, jeopardizing its ability to showcase VR experiences and water exhibits. Similarly, Candy Coaster faces reduced visibility due to being placed in a low-traffic area. Accepted solutions in these cases include negotiating for relocation, reconfiguring booth layouts, and using enhanced signage or digital marketing to attract visitors. Rejected solutions involve passively accepting the situation or making compromises that diminish the exhibit's impact.
- Technical Failures
  Technical disruptions are another recurring theme. Croco World Adventures experiences a general audio system failure, undermining the immersive atmosphere of its wildlife exhibit. FairyTale Tower faces a universal lighting system outage caused by a power overload, while GreenHarvest AgriSolutions struggles with network overload, preventing live demonstrations of advanced soil analysis technology. Recommended

strategies include urgent technical repairs, deploying backup systems, and implementing temporary workarounds such as offline demonstrations or portable lighting. Ignoring these issues or shutting down exhibits entirely is strongly discouraged.

- Scheduling Conflicts
  The scenario involving Lolland Medical Supplies highlights the impact of poor scheduling, where a key product demonstration overlaps with another major event targeting the same audience. Accepted solutions include negotiating for a new time slot, promoting the session through digital and physical channels, and offering simulcast options to broaden access. Abrupt cancellations or ignoring the conflict are considered ineffective and damaging to the company's reputation.

3.2.2 Pedagogical Considerations

The conflict templates were designed with authenticity and structured learning in mind. Each scenario mirrors real-world challenges that require quick thinking, resource coordination, and effective communication—skills essential for both human learners and AI systems. By including both successful and unsuccessful strategies, the templates teach nuanced decision-making and help AI models distinguish between constructive and counterproductive actions. Furthermore, the templates maintain a consistent structure, making them adaptable for various simulation contexts while ensuring alignment with learning objectives.

3.3 Overview of Scenarios

The scenarios reflect common challenges that can arise during job fairs and expos, ranging from minor inconveniences to high-pressure crises:

- Printer Trouble (Easy)
  Mia Nielsen, an electrical engineer at WindTech Innovators, faces a last-minute technical issue when her portable printer fails to connect to her laptop just before the fair begins. The situation requires quick troubleshooting to ensure that essential brochures and sign-up sheets are ready for visitors. This scenario emphasizes technical problem-solving under time constraints and maintaining composure during setup.
- Technical Glitch During AR Nature Walk (Normal)
  Hanna Jensen, representing FairyTale Tower, encounters a technical failure when the AR tablets used for virtual nature walks stop functioning properly during a live demonstration. Visitors are waiting, and Hanna, who is more comfortable with biology than technology, needs immediate assistance to keep the experience engaging. This scenario tests adaptability and resourcefulness in a tech-driven environment.
- Unexpected Raffle Chaos (Hard)
  Lucas Wright, a marketing expert for Adventure Cove Water Resort, organizes a raffle to attract visitors but faces a logistical nightmare when the entry list becomes disorganized. Duplicate entries, missing information, and growing attendee impatience escalate the situation into a high-pressure challenge. This scenario tests crisis management, decision-making under scrutiny, and effective communication to maintain trust and engagement.

3.3.1 Pedagogical Considerations

These scenarios were designed with authenticity, progressive difficulty, and skill development in mind. Easy scenarios introduce learners to basic troubleshooting and interpersonal skills, while normal and hard scenarios simulate complex, high-stakes situations requiring quick thinking, ethical judgment, and emotional regulation. Each scenario trains AI systems to respond contextually and supports learners in developing critical soft skills such as adaptability, problem-solving, and clear communication.

3.4 Learning Materials and Pedagogical Foundation

The AI-based training content is grounded in established pedagogical principles and supported by core learning materials from the AVU course Communication and Collaboration (level G). These resources provide the theoretical and practical framework for the competencies that the simulations aim to develop, including active listening, conflict resolution, and effective teamwork.

3.4.1 Active Listening

The article What Is Active Listening? (Harvard Business Review, 2024) emphasizes that active listening goes beyond simply hearing words—it involves cognitive, emotional, and behavioral engagement. Learners are encouraged to:

- Pay attention to both explicit and implicit messages.
- Manage emotional responses to remain calm and empathetic.
- Demonstrate understanding through verbal and nonverbal cues.

This aligns directly with the AI training scenarios, where learners must interpret nuanced communication, respond appropriately, and maintain professionalism under pressure. Practicing active listening in simulations strengthens learners' ability to build trust, resolve misunderstandings, and foster collaboration.

3.4.2 Conflict Resolution and Collaboration

The resource Samarbejde og kommunikation (Systime, 2023) provides a comprehensive overview of communication models, leadership styles, and conflict resolution strategies. Key theoretical frameworks include:

- Shannon-Weaver and Transactional Models of Communication for understanding message flow and feedback loops.
- Transactional Analysis (TA) for recognizing ego states and interaction patterns.
- Thomas-Kilmann Conflict Mode Instrument (TKI) for identifying and adapting conflict-handling styles.

3.5 Integration with AI Training

The learning objectives from these materials—such as improving listening skills, managing stress, and resolving conflicts constructively—are mirrored in the AI scenarios and conflict templates. For example:

- Scenarios involving booth misallocations or technical failures require clear communication and collaborative problem-solving.

- Conflict templates encourage learners to evaluate multiple solution paths, distinguishing between constructive and counterproductive actions.
- AI characters simulate realistic interpersonal dynamics, enabling learners to practice empathy, assertiveness, and adaptability.

3.6 Assessment and Feedback Framework

After students complete an interaction with an AI character in the Teemew app, their performance is evaluated based on clear, pedagogically grounded criteria. The feedback process is designed to be constructive, appreciative, and aligned with the learning objectives of the AVU course Communication and Collaboration (level G).

3.6.1 Assessment Criteria

The evaluation focuses on five core areas:

1. Communication
   Students are assessed on their ability to communicate clearly and effectively, both verbally and nonverbally. This includes:
   - Speaking/writing clearly and using an appropriate tone.
   - Demonstrating active listening by asking clarifying questions, summarizing key points, and responding to verbal and nonverbal cues.
   - Using de-escalating language, such as "I" statements, open questions, and future-oriented dialogue.
2. Collaboration and Group Relations
   Students must demonstrate an understanding of group dynamics, roles, and responsibilities. They are expected to reflect on their own influence in collaborative processes and adjust their behavior to improve group interactions.
3. Conflict Resolution
   Students are evaluated on their ability to:
   - Identify different types of conflicts (e.g., personal, structural, interest-based).
   - Apply appropriate conflict resolution methods such as negotiation, mediation, or compromise.
   - Remain calm and composed under pressure while using de-escalating communication strategies.
4. Organizational Theory and Leadership
   Students should show basic knowledge of organizational structures and leadership styles, and understand how these influence motivation, engagement, and workplace well-being. They are expected to apply this knowledge in practical roleplay situations.
5. Integration of Theory and Practice
   Students must demonstrate the ability to connect theoretical concepts—such as communication models, conflict-handling styles, and leadership theories—with practical actions during simulations.

3.7 Feedback Principles

Feedback is provided in an appreciative and acknowledging manner, focusing on:

- Recognizing achievements and strengths.
- Offering specific, actionable suggestions for improvement.
- Encouraging reflection on both successes and challenges.

The feedback emphasizes:

- Empathy and respect in communication.
- Assertiveness balanced with acknowledgment of others' perspectives.
- Maintaining a de-escalating focus during conflicts by taking responsibility, exploring viewpoints, and focusing on solutions.

A comprehensive feedback summary is provided to help students understand their strengths and areas for growth, supporting continuous development in communication, collaboration, and conflict resolution.

3.8 Conclusion

The pedagogical content developed for AI-based roleplaying simulations represents a coherent and purpose-driven framework that integrates character profiles, company contexts, conflict templates, and assessment strategies into a unified learning experience. This ensemble ensures that both AI systems and learners engage in authentic, context-rich interactions that mirror real-world professional challenges. By embedding local relevance, diverse roles, and structured feedback mechanisms, the content supports the dual objective of training AI to generate context-aware responses and equipping learners with essential competencies such as communication, collaboration, and conflict resolution. Grounded in established theoretical models and practical scenarios, this approach transforms roleplaying into a powerful tool for developing employability skills and adaptive strategies in dynamic environments.

4 Conclusion

Deliverable 3.2 demonstrates how the ROLEPL-AI project systematically developed and evaluated the pedagogical content required to train the AI-driven simulation environment. By creating detailed character profiles, company datasets, and conflict templates, the project established a coherent and authentic foundation for role-playing scenarios that reflect the realities of professional interactions. These elements ensure that both AI systems and learners can engage in meaningful, context-rich simulations that promote communication, negotiation, and problem-solving skills.

A key strength of the work lies in the authenticity and diversity of the material. Characters were carefully designed to represent exhibitors, job seekers, and staff members, drawing on common names, diverse cultural backgrounds, and relevant professional roles. The company dataset reflects the structure of the partners countries and regional economy, balancing large corporations, SMEs, and start-ups across a wide range of industries. Conflict scenarios were informed by practitioner insights and curricular analysis, ensuring that they mirror real-world challenges while remaining aligned with defined learning objectives.

The development process followed clear **pedagogical principles**, embedding local relevance, scenario-based learning, and progressive complexity. Learning goals such as active listening, conflict resolution, and collaboration were integrated into the scenarios, supported by established theoretical frameworks (e.g., communication models, conflict-handling strategies). The inclusion of accepted and rejected solution paths within the conflict templates provided learners and AI systems with structured guidance on constructive versus counterproductive behaviours.

The evaluation by the educational partners confirmed the relevance, feasibility, and didactic suitability of the created content. At the same time, the process highlighted the complexity of producing high-quality simulation material and the importance of iterative refinement. This feedback loop informed the design of the experimentation phases in Work Package 5 and laid the groundwork for continuous improvement of the ROLEPL-AI platform.

In summary, Deliverable 3.2 provides a **dataset** of characters, companies, and conflict scenarios that combine authenticity with pedagogical purpose. It validates the project's approach to training AI systems through structured, realistic content while equipping learners with essential soft skills. By linking theory and practice, and by ensuring scalability and adaptability, this work package makes a significant contribution to the overall project objective of preparing learners for the future of work through innovative AI-supported role-play.

5 ANNEXE

5.1 FHD EVALUATION CRITERIA

AI Feedback – Evaluation Criteria

List of feedback the AI should give students after conversation or in hall/waiting room:

1 Cognitive Skills – Understanding:

a) Listening – Did the student listen and got the problem right?
b) Clarification – Is the student asking questions to understand the problem?
c) Absorption – Did the student understand the problem?
d) Focus – Is the student focused on the actual topic?
e) Facts – Was the student fact based?

2 Affective & Social Skills – Communication:

a) Articulation – Did the student send clear information?
b) Politeness / Friendliness – Was the student friendly?
c) Sympathy – Was the student pleasant?
d) Emotion – Did the student send positive emotions?

3 Conative & Action Skills – (Re-)Solution:

a) Solution-oriented – Was the student providing a win-win/acceptable/fair solution?
b) Fairness – Was the student providing a win-win/acceptable/fair solution?
c) Clarity – Was the student providing a clear solution und next steps?
d) Competence – Did the student use its full competencies?
e) Limitation – Did the student hand over if it out of the student's competence field?
f) Connection – Did the student help to find a person that has the needed competencies or responsibilities?
g) Protection – Did the student protect its own position and the position of the employer?