Stiftung
Innovation in der
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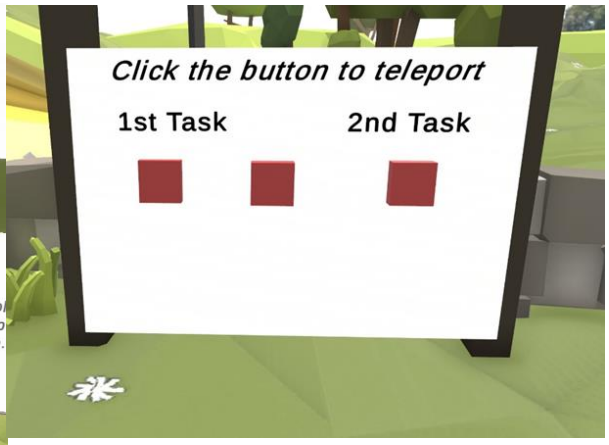
Hildesheim's Virtual Reality Intercultural Tandem Learning Campus: Brief instructions and didactic considerations

Pragmatic approaches to face-to-face communication agree that interlocutors regularly engage in multimodal communicative acts that coordinate and align their understanding of objects and spaces around them, and to ensure that their respective interpretations of meaning are congruent[i]. When members of different L1s interact, they need to put more active communicative effort into identifying and bridging linguistic, encyclopedic, and ideological knowledge gaps. The ability to coordinate meaning and manage common ground is hence a key pragmatic competence for language learners. In order to practice that competence, our project team has developed different virtual language learning environments that provide German, English, French and Spanish learners with virtual rooms for further oral practice of their target language. Based on the digital game-based language learning approach (DGBLL[ii]), the language tandems, which are accessible via VR goggles, have been designed as playful tasks that require the collaboration of the participants in order to be solved and thus elicit the type of communication that may be difficult to initiate without a shared goal.

All language learning games are designed in a way that, in order to be successful, the learners need to reach an understanding that they indeed mean the same when they verbally refer to certain objects in their shared space of perception.



The VR application currently provides three tasks that can be solved with English, German, Spanisch and French instructions.

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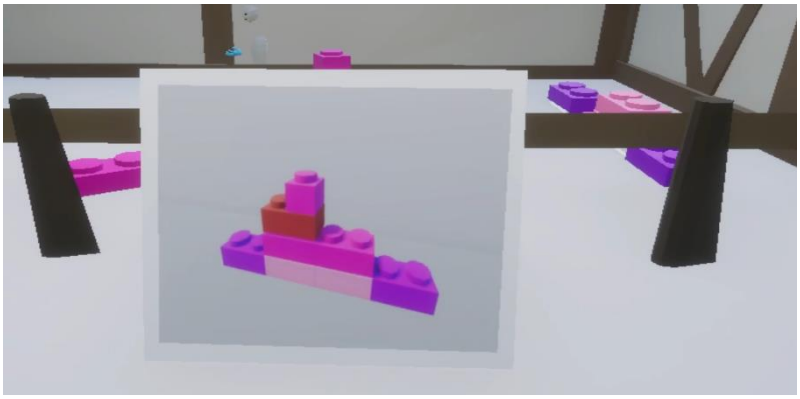
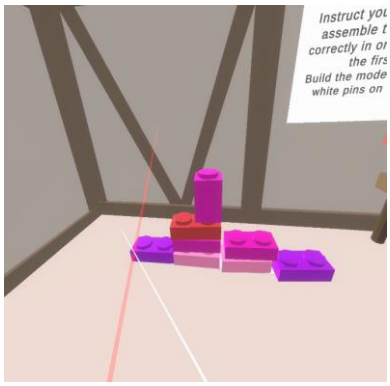
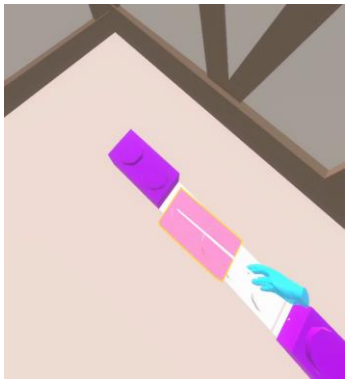
Task 1:

In this level, one participant or team of participants is given a map with instructions for the correct assembly of a Lego model while the other has access to the bricks, which are of different shapes but very similar colors.







The game thus encourages learners to synchronize their understanding regarding the correct name for the color shade which can vary considerably across different languages (for instance “rosa” vs. “pink” in German and English respectively) and to describe the properties of the brick as accurately as possible (one pin or several, large or small, tall or short etc.) to ensure that the correct pieces are placed in the correct order for the program to recognize it and the participants to win the game.

For future use, one could design a variety of Lego models that become increasingly more complex in color and shape to foster communication amongst more advanced learners.

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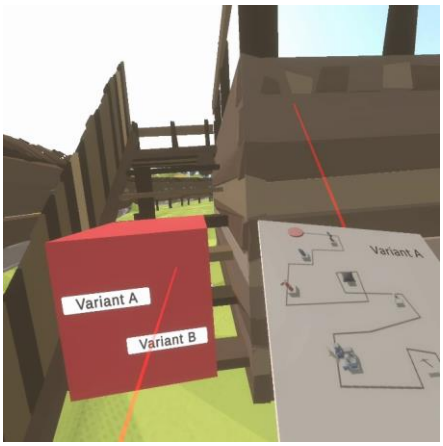
Task 2:

This setup has been inspired by the Hamburg Map Task Corpus (HAMATAC[iii]), which was developed by the Research Center on Multilingualism at the University of Hamburg, and emulates a situation that often occurs in real-life when a person is asked for directions. The communicative task is to imagine the route and recognizable landmarks on it and to share it with one's interlocutor in a way that the other person can comprehend it and easily follow the directions towards their destination. In order to practice this in Social VR, one participant or team of participants (A) is given a map with a route around certain objects that the other person (B) cannot see and has to instruct their tandem partner to walk the path accordingly.



Learners are thus encouraged to not only orient themselves in space and continuously ascertain if their conception of prepositions and directions are congruent but also to describe the objects—some of which have been deliberately chosen to elicit descriptions because the correct terms for them are not likely to be part of the learners' vocabulary at this point (e.g. appliances from a chemistry laboratory).The route that B walks is tracked by the program and displayed for both participants to evaluate once they reach the end. Ultimately, the communicative interaction ought to be precise enough for the route printed on A's map of instruction to resemble B's path as closely as possible.

Once the environment is programmed, the individual objects and the routes around them are easily changeable and can be adapted regarding their complexity. Variations of this task can be employed in a number of different virtual and/or digital environments.

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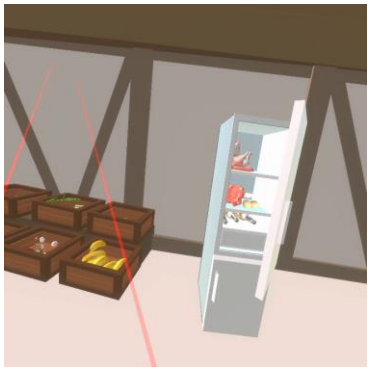
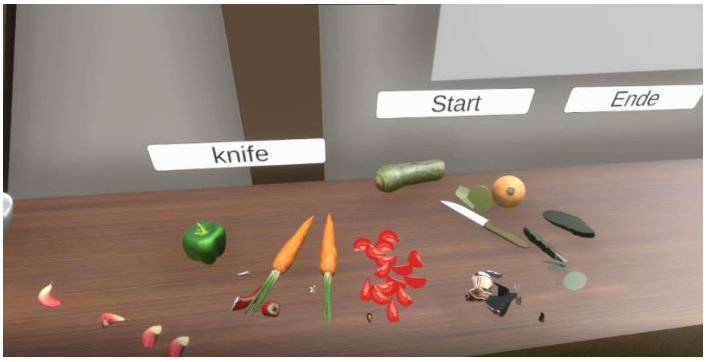
Task 3:

The third room is a virtual kitchen in which participants can choose from a number of different recipes to prepare a meal together. They are given a short instruction that lists the required ingredients and where to place them in the VR environment. The objective is to encourage communication that involves vocabulary from a cultural practice that is deeply entrenched in many parts of the world, including verbs referring to physical action (e.g. fetching, chopping, cutting, peeling), different nouns for different types of meat or vegetable and different cooking utensils such as pans or pots. The participants have four minutes to orient themselves in the room, to agree which food items are most likely meant by the description and then to place them in the correct container.





The data we collected and analyzed so far reveals that, in game-based collaborative tasks of this nature, participants consistently engage in concomitant evaluations of the communicative efforts it costs to verbalize their mental concepts in the necessary detail in the target language and to make themselves understood—a process and a skill that lies at the very heart of intercultural communicative competence and the mastery of a foreign language.

[i] Ehlich, Konrad (1996): Interkulturelle Kommunikation. In Hans Goebl et al. (eds.) Kontaktlinguistik. Ein internationales Handbuch zeitgenössischer Forschung. Berlin: de Gruyter, pp. 920-931.

[ii] Ahlers, Timo; Lazović, Milica; Schweiger, Kathrin & Senkbeil, Karsten (2020): Tandemlernen in Social-Virtual-Reality: Immersiv-spielebasierter DaF-Erwerb von mündlichen Sprachkompetenzen. Zeitschrift für Interkulturellen Fremdsprachenunterricht 25:2, pp. 237–269. http://tujournals.ulb.tu-darmstadt.de/index.php/zi

[iii] Hedeland, Hanna (2011): Interaction of technology and methodology in building and sharing an annotated learner corpus of spoken German. In María Luisa Carrió Pastor & Miguel Ángel Candel Mora (eds.) Actas del III Congreso Internacional de Lingüística de Corpus. Tecnologías de la Información y las Comunicaciones: Presente y Futuro en el Análisis de Corpus. [7.-9. April 2011, València]. València: Editorial Universitat Politècnica de València, pp. 87-100.

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