The Use of the Role-playing Technique STARS in Formal Didactic Contexts

Abstract: Live action role-playing games (larps) are an effective, yet uncommon learning tool in schools. For broader implementation, the design of the game has to serve curricular and pedagogical needs alike. This paper presents core principles of design and implementation of educational live action role-playing games in curricular primary and secondary education. Over the course of 5 years, 16 live action role-playing games with a total of 53 cycles of Design-based Research (DBR) including design, testing, and evaluation were conducted in German schools. This paper synthesizes 17 essential principles from the DBR cycles as best practice in the context of subject-bound curricular focus. The results of our study show that four parameters differ in schools from extracurricular live action role-playing activities: curricular guidelines, compulsory participation, grading practices, and time/space confinements. These four parameters need to be taken into consideration at all times when designing and conducting a live action role-playing game in a school environment. Moreover, design for simplicity and inclusion is paramount for successful implementation within subject-teaching in schools as a rewarding tool to foster content-knowledge and to promote social and personal skills.

Keywords: educational role-playing games, edu-larp, Design-based Research, best practices, classrooms, Germany

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1. LIVE ACTION ROLE-PLAYING PRACTICES IN SCHOOLS

Role-playing techniques are frequently applied in curricular contexts such as schools. Especially in language and literature learning, they serve the purpose of contextualizing scenes and visualizing relationships (Hochstadt et al. 2013), engaging students actively in interpretation processes and the active usage of language (Hallet 2008; Scheller 1998). More often than not, role-playing units do not exceed short scenes, and it is a common practice that after rehearsing a scene, certain groups present their dialogue to an audience in front of the class (Warm 1981).

Live action role-playing, however, is a role-playing concept in which everyone present in the room, including the pedagogues, represents a character in a fictional scenario. Usually, participants interact simultaneously and scenes are not presented to an audience. Even though there is no text-manuscript to be recited, the role-playing game usually follows a pre-written narrative structured in scenes. Sometimes, this script is developed with the students, but in most cases only the facilitating pedagogue knows about the upcoming major incidents in the narrative. Live action role-playing in curricular and extracurricular contexts is also known as *edu-larp* (Branc 2018), or as *Process Drama* (Bowell and Heap 2001; Heathcote and Bolton 1995) in schools. Similar concepts are *Simulation Globale* developed in France (Maak 2011; Yaiche 1996) and *Szenisches Spiel* in Germany (Scheller 1998), both being holistic drama techniques through which students explore a certain topic whilst being in-character. These techniques have in common that all of them include a preparatory phase, a rather long improvisational acting phase without any external observers, as well as a reflection moment after the acting (Geneuss 2019). Moreover, all strive to guide the student towards pre-set learning goals. Larp emerged as a leisure acting activity from tabletop games in the late 1970s and later as edu-larp turned into an educational tool in different contexts (Bowman 2014, 120). In contrast, Process Drama, Drama in Education, Simulation Globale, and Szenisches Spiel were developed as didactical tools to be applied in curricular teaching at around the same time. Since these practices can be referred to as being cousins or twins (Bowman 2014; Mochocki 2013), this article will refer to all these practices as live action role-playing games, regardless of their evolutionary history.

Pedagogues and researchers have identified live action role-playing games as useful tools benefitting curricular teaching in a wide array of subjects including history (Mochocki 2013, 2014; Munz 2015), language and literature (Torner 2016; Hulse and Owens 2019) or science (Bowman and Standiford 2015). Even though these live action role-playing formats have existed for quite some time and their potential has been described (e.g., Balzer and Kurz 2014; Bowman 2014; Neubauer 2015; Simkins 2015; Vanek and Peterson 2016; more examples in Bowman 2014), they are far from being a commonly used method in the teacher's toolbox. There is little evidence that transferring the learning concept on a broader scale to traditional institutions has taken place. Two Danish boarding schools, Efterskole Epos and Østerskov Efterskole, who apply live action role-playing for students aged between 14 and 18 on a regular basis (Hyltoft 2012), are illustrious exceptions to the rule.

Reasons for the lack of widespread implementation despite the clear potential in daily pedagogical practice are manifold. The obstacles for teachers are still high. Role-playing games are a complex technique and teachers feel that they lack skills to conduct them (Geneuss, Obster, and Ruppert 2020). Moreover, teachers are often constrained by a culture of testing and correction (Kao and O'Neill 1998, 28) and run the perceived risk that such innovative practices may challenge the teacher's professional identity and strenuously established hierarchies of power in the classroom (Hulse and Owens 2019). Practical reasons could simply be the lack of accessible material. There is no equivalent to a library where pedagogues could choose from a variety of live action role-playing games designed for their subject contexts following certified quality standards. This paper contributes to closing that gap by suggesting design and implementation standards that emerged from Design-based Research (DBR). These standards may serve as the basis for the establishment of a library compiling live action role-playing games developed for schools. Standards not only refer to the material, but include advice for advanced pedagogical training enabling pedagogues to perform these games in curricular context to the benefit of their students. The specific curricular demands for the respective country or region as well as methods of assessment will have to be taken into consideration by each team designing the games.

1.1 Live action role-playing in school environments

When applying live action role-playing games as a drama tool in institutional teaching, the curricular and institutional framework conditions need to be considered in design and implementation. The four major differences to conducting leisure role-playing activities are curricular guidelines, compulsory participation, grading practices, and time/space confinements.

Curricular guidelines, such as subject-specific teaching aims and learning goals, usually define the choice of methods in subject teaching. In addition, several countries have overarching goals that ought to be included in all subjects, including values education, democracy, 21st century skills, or media education. Once the goals for a certain learning unit are defined, pedagogues choose methods and material accordingly and impart how the choices contribute to the goals. As a consequence, when opting for a live action role-playing game, the pedagogue has to justify their choice with the contribution to specific curricular and overarching goals. For the live action role-playing tool, researchers point out that preparation and reflection are crucial for the achievement of pedagogical goals (Bowman 2014, 127).

Attendance and active contribution are usually compulsory in school settings, arguing that teachers apply a variety of tools that eventually reaches out to all learners and leads to increased performance. In subject teaching, it is the teacher's responsibility to offer all students learning opportunities and to make sure that all learners are promoted according to their abilities, interests, and needs. Thus, one of the teacher's challenges in any subject is to interrelate the individual student with general curricular teaching aims. When opting for a role-playing game, all learners must be given the chance to participate and to actively contribute to a positive atmosphere. Negative social behavior in game-based learning such as disrespect can block any intrinsic motivation from the other participants:

> The combination of social learning as well as social game playing can be sustainable if it is perceived as a situation of (mutual) generosity – giving knowledge, skills, or time and attention of each other – because in this way intrinsic motivations (e.g., perception of relatedness and competence) for learning and gaming can coincide. Negative behaviour is likely to destroy this tie. (Remmele and Whitton 2014, 122)

Formative or summative feedback is a common practice in all schools. In open, explorative settings, prescriptions for performance could minimize creativity, agency, and interaction. On the other hand, they can create a safe space for all participants. Feedback on the students' performance is crucial even in drama tools. Yet, it has become best practice not to convert it into grades or credits. Pedagogues implementing drama techniques in curricular teaching find orientation in guidelines of facilitating drama in education (Hilliger 2014, 24). This is first and foremost a respectful attitude among all participants. Furthermore, separating the character from the player and not having any real-life consequences for the character's in-game actions is essential. During reflection, the character's actions are referred to by the character's name, not the player's. Also, in-game and off-game phases are clearly indicated by certain mechanisms.

Lastly, formal learning environments are usually organized in time slots and classrooms. Of course, there are settings of formal education where learning is organized differently (Montessori or Waldorf, just to mention two), but this paper aims at finding out how live action role-playing games can be implemented in subject-teaching in a traditional environment.

In terms of game design and implementation, game-based learning research indicates that:

a) the narrative or the characters ought neither be boring, complicated or illogical, since that might inhibit the subject-matter learning processes (Seelhammer and Niegemann 2009);
b) the role-playing experience ought to be a positive one for each participant, because if that is not the case, negative feelings evoked by the game can cause a negative attitude towards the entire subject (Orr and McGuinness 2014, 53); and
c) transferring the in-game learned lessons to the subject context and the learning goals is difficult, but crucial (Grebe 2012).

Therefore, this paper establishes principles for implementation and design of live action role-playing games that allow pedagogues to opt for larps as a means of contribution to curricular teaching aims and learning goals. The STARS project seeks to develop live action role-playing game formats that are applicable as a low-threshold learning tool in traditional curricular environments.

1.2 Student Activating Role-playing GameS (STARS)

The role-playing technique STARS (Student Activating Role-playing GameS) was initiated as a derivative from role-playing formats such as edu-larp and other drama tools that are applied in formal school settings. Starting in 2016 at Ludwig-Maximilians-University Munich, we mapped live action role-playing in curricular teaching based on empirical data, including the perspectives of experts (Geneuss 2019), teachers, and students (Geneuss, Obster and Ruppert 2020). Since adapting to the parameters mentioned in Section 1.1 implies limiting some of the openness and the explorative character of an edu-larp or Process Drama, the acronym STARS (Student Activating Role-playing GameS) was coined to convey the distinction in any communication about the project.

The concept of STARS aims at maintaining as much of the open and explorative character of a spare-time larp, but adapted through the Game-based Research (GBR) cycles as much as required to school settings. As opposed to most of the techniques mentioned above, a STARS offers a clear

timeframe. It claims to be feasible within only four lessons, which is a significant difference to some of the methods mentioned above, for example *Globale Simulation.* It requires 45 minutes of preparation, 90 minutes for the acting phase, and 45 minutes for reflection activities after the game. Also, a STARS is a closed unit to which the teacher may recur in subsequent lessons, but does not necessarily have to. The role-playing game can take place in one single classroom and be implemented by one single in-character pedagogue. The pedagogue is not required to undergo special training, but needs open-mindedness regarding the students' improvisation. Loosening hierarchies established in the peer group and between teacher-student is as important as the will of letting the students explore the narrative on their terms.

The STARS concept focuses on contributing to curricular teaching aims and learning goals. Each script outlines which skills can be promoted and which goals can be included in primary and secondary school subject teaching. Albeit feedback being crucial, teachers and pedagogues are urged not to include the game itself into the grading practices. Since most STARS were tied to language and literature teaching, we suggested that curricular goals that could be tested in graded exams after the unit included historicity of language, communicating in an appropriate way to the addressee, writing from a literary character's perspective, reflecting the communication within a culture, etc.

Since participation in school activities is mandatory, we expected active contribution to our drama interventions. However, according to experts, the participation in live action role-playing such as edu-larp ought to be voluntary (Geneuss 2019). This discrepancy is partly solved by offering scalable participation, mechanisms of slow approach, and by allowing students to opt out of the game in a way that does not disturb the group's dynamics. It has to be taken into consideration throughout the entire process of design and implementation that the students are not participating out of their own initiative as they would be in a spare-time drama or larping activity. Just as any other method, it might appeal to some and be highly demanding or even be daunting to others. Therefore, the STARS project strives for inclusion and a positive experience for each participant throughout the entire process.

2. EMPIRICAL STUDIES

The overarching aim of the STARS project research is to assess the suitability of live action role-playing games in schools and derive best practices for game design and implementation. Several sets of empirical data, both qualitative and quantitative, have been analyzed since 2016. The focus of this paper is the data generated by Game-based Research (GBR) of 16 live action role-playing games that were tested and evaluated in all school forms in Bavaria, Germany, with learners of all ages. The following sections give a short overview of the STARS project research.

2.1 STARS Project Research

Starting in 2016, I firstly examined how international experts in live action role-playing, as well as pedagogues and teachers, describe the contribution of larps to formal and informal learning processes, within which potential and challenges are generally identified (Geneuss 2019). Secondly, the perception of teachers and students regarding promotion of subject-matter content as well as the training of personal and social skills through live action role-playing games were assessed. This includes discussion of different perspectives on challenges when designing and conducting larps (Geneuss, Obster, and Ruppert 2020). In addition, live action role-playing games were described in detail as an example for holistic learning (Geneuss 2020), second language acquisition (Geneuss and Hilgers 2020, 2021), and literature (Geneuss and Ruppert 2020).

The empirical studies conducted during the STARS project took place at community-driven schools in the Munich area during regular lessons, always aiming at contributing to curricular subject-

specific teaching aims while considering the individual learner's needs and abilities. Overarching learning goals were also taken into consideration. The evaluation process of the quantitative data was monitored and supported by the statistical advisory center at LMU (StaBLab).

Having established that pedagogues and students perceive live action role-playing games as a meaningful contribution to content learning and skill training in schools (Geneuss, Obster, and Ruppert 2020), the current focus of our research is to develop principles for the design and implementation of the drama tool in formal education, independent of the educational system and subject curricula. To do so, we extract crucial principles from the live action role-playing games facilitated in over 20 schools throughout the past five years: 16 role-playing games have undergone 53 cycles of Design-based Research (DBR), meaning that each unit undergoes at least two loops of design, testing, evaluation, and re-design, with iterations that result in a documented best-practice model. Aligning this model with the results from the quantitative and qualitative studies, the aim is to present a standard for facilitation and design of live action role-playing games in formal contexts such as subject-matter teaching in schools. Table 1 presents an overview over the research conducted within the STARS project:

Table 1: Material, methods, and research questions of our empirical research on the suitability of live action role-playing games in a school context.

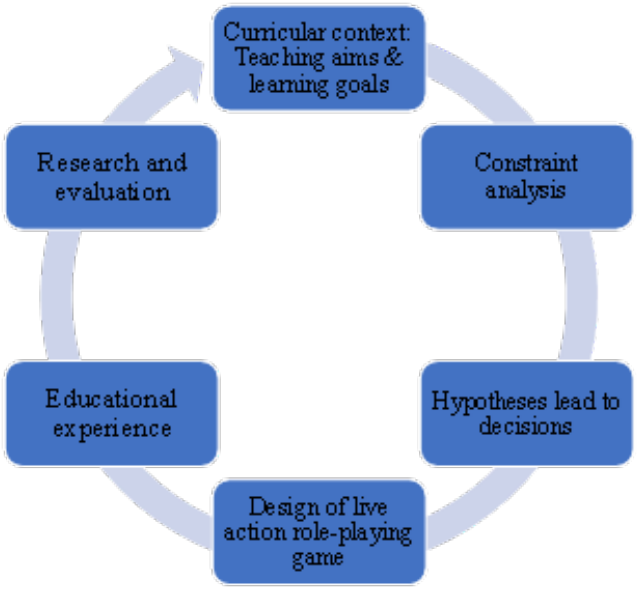
Set of data	Research Questions	Method	Material	Publication
1. Experts in live action role-playing games, edu-larp, and other similar forms	What is larp/ edu-larp? How can it contribute to formal learning?	Qualitative Content Analysis (QCA)	12 experts: semi-structured interviews	Geneuss 2019
2. Teachers	Impact and learning-progress? Skills? Challenges?	Qualitative Content Analysis (QCA)	7 teachers: semi-structured interviews	Geneuss, Obster, and Ruppert 2020
3. Students	Impact or learning progress?	Statistical analysis	161 surveys	Geneuss, Obster, and Ruppert 2020
4. Students	Learning progress after participating in several role-playing-games?	Qualitative Content Analysis (QCA)	Formative feedback talks	Geneuss, Obster, and Ruppert 2020
5. 16 STARS (Student-Activating Role-playing Games)	Best-practice of design, implementation, and facilitation of live action role-playing in schools?	Design-based Research (DBR)	16 Live action role-playing games, 53 cycles	This current study

2.2 Material and Methods

Striving for a deliberate, purposeful, and comprehensible pattern in the design and facilitation of role-playing games in school settings and working towards curricular goals, we proceeded according to the Design-based Research methodology (Edelson 2002; McKenney and Reeves 2018). This methodology is well-established in the field of educational research since it bridges the gap between theory and practice. Practical implementation becomes the nucleus for theories in teaching and learning environments, aiming at implementing innovation in these contexts (Reinmann 2005). According to

Edelson (2002), the innovation design process can be defined as a series of decisions between goals and constraints. The design procedure shifts back and forth between problem analysis and design solution, adapting the decisions to the contextual circumstances in the best suitable way. Figure 1 shows the maturing progress of the intervention through increased implementation:

Figure 1: Design-based Research cycle for the STARS research.[1]



As a first step in this DBR model, the curricular context needs to be assessed. The educational goals are analyzed carefully in the context of the specific subject matter and common learning and teaching practices. Second, the constraints are identified when choosing the innovative learning format in this subject matter context. Third, a series of articulated assumptions (hypotheses) are made about how narrative and game mechanics support the learning process. This discussion is followed by the fourth step of designing the live action role-playing game in accordance with the established hypotheses, defining the narrative, characters, group constellations, activities, and interactions that constitute the learning environment. With the role-playing game scripted and the game-master instructed, the game is simultaneously implemented and observed in a fifth step. The pedagogues and researchers reflect over all decisions regarding design and implementation, gathering these minutes in digital journals which serve as the basis for taking design decisions in a new cycle of testing. The documentation of these cycles is used to pass new iterations and, at this stage, to draw conclusions on best practices.

The live action role-playing games that went through one or more cycles in schools in Bavaria, Germany are summarized in Table 2:

Table 2: Overview of role-playing games, curricular focus, learners' ages, subject, and number of cycles. The teaching aims and learning goals for each age group tie to the curricular demands in Bavarian schools and were coordinated with the pedagogues from the respective field. To make this paper accessible for an audience beyond Bavaria, the curricular focus is only expressed in very general terms.

1 http://hdl.handle.net/10138/38878

Number	Title	Teaching aim/ learning goal	Age learners	Subject	Cycles
1	*Pompeji*	Verbalize Latin; historical event	10 - 14	Latin	3
2	*Children's Rights*	Expand knowledge about children's rights; perspectives	8 - 12	German	5
3	*Accused*	Medieval justice and societal circumstances, tied to the novel *Oskar and the Disappeared Children* by Claudia Frieser	10 - 14	German, History	6
4	*Adventures on Olymp*	Greek mythology	12 - 14	German, History	5
5	*Intergalactic Union*	Poetry, verbal expression, and perception	12 - 14	German	3
6	*King*	Appreciation of native/first languages; linguistic diversity	12 - 16	German as foreign language	2
7	*Space Journey*	Appreciation of native/first languages; linguistic diversity	10 - 12	German as foreign language	1
8	*Who's the Thief?*	Interaction/communication	8 - 12	English/ German	5
9	*Faust, or What is happiness?*	Literary education: *Faust* by J.W. von Goethe	14+	German	1
10	*Rumpelstilzchen*	Fairy tales; agency	8 - 10	Drama	2
11	*School of Wizadry*	Imagination; interaction	8 - 12	German	3
12	*Jim Knopf*	Literary education: *Jim Button and Luke, the Engine Driver* by Michael Ende	8 - 10	Drama/ German	1
13	*Europe, the band*	Democracy; European history; conflict solving	14+	Social science	3
14	*The books that disappeared*	Interaction/communication	8 - 12	Drama/ German	9
15	*The Party*	Speed limit; argumentation strategies; conflict solving	14+	German/ Geography	2
16	*Time Agents*	Gravity; recoil	10 - 14	Physics	2

All games were facilitated by *Starmanufaktur*, which is the umbrella name under which pedagogues, researchers, and actors present themselves to schools and other pedagogical institutions. As the games were implemented, they were observed by researchers of Ludwig-Maximilians-University Munich, who also conducted the surveys (empirical sets of data 1 – 4, table 1). Most of the games were designed for the subject German, since the focus of the initial research project was to investigate the implementation of live action role-playing games in curricular German lessons (Geneuss 2019). Games 14 and 15 are hybrid games and can be conducted digitally or in classrooms. To find out how the design standards would work in other subject-matter contexts, some games were facilitated in Geography, Drama, English, German as a foreign language, and Natural and Social Sciences. Games 2, 3, 4, and 5 were originally designed by *LajvVerkstaden* (Sweden), a company producing and facilitating live action role-playing games in curricular and extracurricular contexts. All other games were designed by team members of the STARS project in a cooperative process. For all games, the students received a short role sheet that indicated which family or group they belonged to. For the older learners, more information was provided, such as conflicts within their families. To foster engagement and motivation before the

game, the students could add some items of information, such as name or profession. All games had a scripted structure with a clear progress of action. Nevertheless, open phases were implemented as well. Parameters considered for evaluation were learning goals, game mechanics, social interaction, tasks, degree of immersion, and setting. Since the games differ in target group, topic, character immersion, etc., there was always room for free associations and unstructured exchange. Once the assessments were documented, a new cycle of design and facilitation was initiated.

2.3 Ethics

The core principles of ethics in this research concern the humans involved and the methods used; striving for objectivity; internal and external validity; reliability; rigor; open-mindedness; and honest and thorough reporting. Striving for maximized objectivity and integrity of all researchers, we aim at maintaining our data intersubjectively comprehensive by sketching all major steps in the process of our research.

The main codex for committing to ethical guidelines include objectivity and integrity of the researchers involved, as well as minimizing risks for all participants, including voluntary participation and informed consent when participating in interviews and surveys, as well as depersonalization of confidential data (Unger 2014). All participants were informed about the research project and consented to the use of data (Caspari et al. 2016, 111). To maximize the participants' integrity, each individual could choose to anonymize or pseudonymize their data. Also, not participating in the surveys would not lead to any disadvantage for the individual. To protect the participants privacy, the participating institutions are not mentioned by name.

3. RESULTS

Results of DBR can be projected in several ways to ensure to be transferred to other contexts. One way is to sketch procedural and design principles (van den Akker 1999) to provide guidance and indicate direction, but not to give certainties and prescriptions. In the following, I expand on 17 principles that have proven to be efficient for the design and implementation of the live action role-playing games we conducted. These follow from a set of overarching guiding principles. In the context of our study, the demands of schools were considered to the highest degree, aiming for feasibility of the concept under the active participation of all students. Based on a total of 53 cycles of 16 different live action role-playing games, I conclude that larps can be designed and facilitated within the framework of institutional needs. As in any live action role-playing games, the "conscious implementation of any and all design choices matter" (Hugaas and Bowman 2019, 19).

3.1 Guiding Principles

For our initial design, we decided upon the following seven guiding principles for live action role-playing games to meet curricular goals in primary and secondary schools. These decisions were based on international larp experts' perspectives (Geneuss 2019) and have been similarly formulated by practitioners and scholars alike (e.g., Hammer et al. 2018; Mochocki 2018).

I. There is no uninvolved, observing audience. Every person in the room participates and acts within a character in the same narrative.
II. The acting phase is framed by a preparation and a reflection process, tying the role-playing experience to previously defined learning goals. Prior to the acting phase, a set of rules and opt-out mechanisms are communicated clearly. The uninterrupted acting phase stretches out over

several scenes.

III. The atmosphere is coined by mutual respect, careful curiosity, and a positive attitude towards making mistakes, co-creating, and exploring a setting. The interaction is affirmative and cooperative, not competitive.

Beyond these general characteristics of educational live action role-playing games, they address the practices of educational institutions such as schools as follows:

IV. Any of our live action role-playing games can be conducted by one single teacher in one classroom. The game unit is feasible within the teacher's timetable.
V. The role-playing unit is not subject to any grading practice. Yet, students get feedback on their performance.
VI. Learning goals are extracted from the curriculum. Every phase of the unit is cross-checked for its contribution to achieving these goals.
VII. Since participation is mandatory, all games are designed for inclusion and have opt-out mechanisms.

3.2 Design: General

3.2.1 Communicate method choice and learning goals

The curricular teaching aims and learning goals are guiding parameters throughout the entire design process. The unit of preparation, game, and reflection follows an inner progression and is tied to these goals. In several cycles, students and teachers enquired the reason for choosing this particular method. Participants were more engaged throughout the unit, the earlier and bolder we sketched the reason for opting for live action role-playing games as a method of working with a specific subject content. Furthermore, we noticed the relevance to point out how the role-playing activity contributes to the students' skills and their performance in the subject. In the GBR cycles, students appreciated to see how it could improve their results in exams.

3.2.2 Consent and some degree of voluntariness is crucial

In contrast to informal larp, where participants join in voluntarily, learners in schools have to attend the lessons and have no or only little command over the methods chosen by the teacher. Therefore, any role-playing format ought to be designed in a way that learners have maximum control over their degree of involvement and can opt in and out of challenging experiences based on a principle of trust and consent.

The educators' frequent concern in facilitating a live action role-playing game was that students would not want to partake in the game. In the 53 DBR cycles, we only encountered this phenomenon four times. We found it is best addressed by telling students in the very beginning that their active participation is appreciated, but optional. Several preparation exercises such as *black box*, *room walk*, or *mirroring* help the students to get an idea of what to expect. Rehearsing opt-out mechanisms confirm that the students really have command over their participation. If the reluctance persists, a conversation outside of the classroom is useful, where students are told that they do not have to be active, but for the game to work and not to discourage classmates, they should just follow the instructions. In three independent cases, this strategy helped students to gain control over their degree of participation. They overcame their insecurities, and in two cases, the initially reluctant students were the ones who in the debrief said that the role-playing unit was a very rewarding experience.

3.2.3 Feedback, opt-out and reflection require training

Throughout the cycles, we realized that not only the role-playing format was new, but also the feedback and reflection mechanisms. Students (and teachers) might not be familiar with giving constructive feedback or with having a feedback discussion in which the participants' impressions remain uncommented by the teacher. The open approach towards ambiguity in these rounds might be uncommon in school settings, but in our games was defined as an important learning goal on the level of values education.

In almost all cycles of feedback discussions, participants reflected upon the in-game characters with their classmates' real names. It is important though that exclusively the characters' names are used when talking about in-game actions, relationships, or similar aspects, to make clear that there are different levels of reflection. This avoids assigning motives to the players, not the characters. We realized that it was not enough to only point it out, but it needed to be trained before the feedback and reflection phase could start. Also, stepping out of the game without inhibiting the other participants' game had to be trained, not only explained. Despite the high amount of time needed, it helped students to remain in character and to feel safe and in command during the game. Several students mentioned that it increased their perceived confidence to know that they could take a break if needed.

3.2.4 Varied feedback is appreciated

Feedback is crucial, especially after the acting phase. Appreciation for each learner's participation should be expressed by the pedagogue as an immediate response and a sign of appreciation after the game, regardless of how effectively or deeply the student contributed to the role-playing game. To make feedback nuanced, it can be given on several levels: teacher to student, peer to peer, and self-assessment. This combination has proven to be effective when aligning the role-playing experience with subject-matter content. Also, asking for improvement suggestions was highly appreciated.

3.2.5 Frame the live action role-playing by traditional learning tools

We found it useful to frame the role-playing unit by traditional learning tools. Thereby, we supported learners who did not feel comfortable with the drama tool and needed to achieve the learning goals by other means. Moreover, students appreciated reflecting on the role-playing game as an unusual experience and comparing it to other learning strategies.

3.2.6 Variations in constellations, assignments, and levels of intensity

The scenes of a live action role-playing game represent a variety of social constellations and communication tools. Therefore, a STARS ought to include group work, work in pairs, and individual tasks. The tasks could cover speaking, listening, writing, and reading activities, maybe even drawing, acting, singing, and speaking different languages. A scaffolding design technique is appropriate: students start with activities that require little to no exposure and agency (reading, writing) and slowly add interactive (discussing) and creative elements (acting, singing). A talk in front of the group is demanding when unprepared and spontaneous, so the participants could be given a chance to discuss certain arguments first, then defend their position in another group constellation. Instead of demanding, "Sing a song for the queen," we required that "everyone perform for the queen." The participants chose according to their own preferences whether their characters would sing, act, or perform a poem, and whether they would do it individually, in pairs, or in groups.

3.2.7 Design for a positive experience

It is crucial that the game creates a positive learning experience for the students, both on an individual level and as a group. The younger the students were in our cycles, the more important positive endings became, e.g., the class wins over the evil. We also found it to be ambivalent when characters died at the end; some students were deeply disappointed.

The designers ought to assess the game from a participant's perspective: What is required to achieve the learning goals? What elements are well-known and what are new, both in terms of content knowledge as well as methods and techniques? It is therefore helpful to include scenes that are foreseeable, transparent, and similar to classroom situations, while other scenes can come as a surprise and require spontaneous, unplanned engagement.

3.2.8 Limited material, props, and costumes

To keep organizational efforts low, only a limited number of costumes, props, and other materials should be included. Also, the printouts for the entire unit should be limited, since we could observe that the participants felt overwhelmed by receiving more than two assignments on paper. Technological features can be included, but scarcely, since they demand the students' focus and disrupt the immersive experience. We also observed that nametags with symbols and images created a high incentive for students. Students also appreciated haptic elements as well as eating and drinking during the game. Props and costumes are helpful devices that indicate whether the participants are in character or not. When transitioning in and out of the acting phase, these props and costumes indicate to the participants that a new phase has started.

3.2.9 Repetitions are advised

It is advisable to facilitate 3 to 5 repetitions of live action role-playing games over the course of a school year. We could see that when regularly exploring a certain theme or topic through a role-playing game, students became more comfortable with interacting on par with all participants. They learned to take on roles and understood that a STARS depends on their cooperation and co-creation, as opposed to many traditional learning tools.

3.3 Design Characters

3.3.1 Short descriptions of characters and inclusive names

The design of the characters should be kept simple using a very short description. We aimed for simple characters, because that can obstruct the participant and thereby obstruct access to the subject-matter (see chapter 1.1). Students reacted positively to those names that were applicable to all genders. Moreover, participants appreciated being encouraged to choose genders that do not represent their assigned genders in real life.

To give students more command over their in-game experience, it has proven to be beneficial if the students do not get fully set-up characters, but make up some relationships, add details to their biography, come up with hidden skills, etc.

3.3.2 Inclusive design of constellations

It is rewarding to design groups of characters, so that each participant feels the safety of an in-game social net. In an investigative setting for example, this could be groups like the detectives, the spies,

and the agents. Each group has one specific trait, interest, or goal that unites them. Furthermore, each character has at least one positive relationship to one other character. By designing groups, we avoided that one character stands out in a positive or negative way. Throughout the cycles, we found that students appreciate working in constellations that differ from their group of friends in real life.

3.3.3 Fictional and younger characters are tricky

When designing for the use in literature teaching, a direct transfer of characters into a live action role-playing game should be avoided. We realized that when including roles such as Harry Potter, Faust, or Jim Button, the participants' notions of how to portray these characters diverged to a high degree. They interrupted each other, added details, or even demanded to stop the game to discuss how the character was portrayed. Therefore, we opted for designing characters with similar functions, such as a wizardry student, a desperate researcher, or a curious traveler. In the reflection, we still extracted similarities between the novel's characters and the role-playing activity.

Designing characters that are younger in age than the actual participants lead to unexpected challenges. Some students did not take their characters seriously when embodying young children, refrained from immersion, and thereby obstructed the game for the others. To avoid this, children characters ought to be above the players' age. We also noted that the students behaved especially considerately and respectfully when they used the more distant form of addressing the other characters (Sie, Usted, etc.).

3.3.4 Facilitator's character should be low-key

The facilitator's role should fit into the narrative, not be closely tied to singular characters, and somewhat neutral, like a journalist, a visitor, or a messenger from another time or place. This makes it natural for the facilitator to ask questions, not to take sides, and to hand over instructions that might have come from a third party.

3.4 Implementation

3.4.1 Respect is a hard rule

It is the pedagogue's utmost duty to ensure every participant's well-being and comfort. If the pedagogue observes disrespectful dynamics among two or more players, or if the group targets one character too hard, the game is to be interrupted immediately. We found it useful to do this in-game, since it was easier for the students to continue acting in-character. In-game reasons could be a volcano erupting, a meteorite approaching, or a fire alarm going off. The students in the disruptive group needed to work in different constellations from then on. If disrespect occurred once more, the process of role-playing was interrupted off-game. Only if everyone agreed to interact respectfully, the role-play was resumed.

3.4.2 All participants are on par

In a live action role-playing game, participants are on a par with each other, including the participating adults. Within school settings, this is difficult because student-teacher relationships imply a certain hierarchy. We found it useful to clearly communicate that any in-character interaction will not have any negative impact on the real-life relationship or on the grade.

Facilitating the game requires both seriousness and playfulness. If facilitators embody the character with ease, they are a role model for the students and it will be easier to imitate that attitude. It

has proven to be useful not to play too intensely because that seemed to intimidate some students. By acting moderately, students realize that they have options both to withdraw exposition and intensity, but also to increase it.

3.4.3 Maintain and restore the focus in loud noisy surroundings

Throughout several of the DBR cycles, loud interaction was problematic when students interact too lively with each other, speak up, interact physically, sometimes push each other, or do not follow instructions or the narrative. This behavior might be stimulated by the unusual form of interaction in school contexts and does not deliberately disrupt the narrative. Among several different strategies, it has proven to be useful to stay in character and find a mechanism within the narrative that makes everyone sit down, be silent, not touch each other, etc. Once silence is restored, the pedagogue ought to be very clear that rules for respectful communication need to be followed. Whether this is communicated in-game or off-game depends on the degree of disruption.

Our team also experienced that there are several external sources of interruption, such as fellow teachers knocking on the door, announcements through speakers, curious schoolmates behind the windows or electronic devices going off. Thus, taking preventive measures such as signs on the doors, closed curtains, cell phones in bags, etc. is useful.

Table 3: Best practice model for the implementation of role-playing games in institutional settings.

Before the acting	During the acting	After the acting
Communicate: Define and discuss teaching aims/learning goals and how the game contributes to achieve them. Train the usage of gestures, mimicry, and verbal expression. Communicate rules and opt-out mechanisms. Train constructive feedback, how to remain in-character, affirmative play. **Prepare:** Make sure to understand the progression of the unit and know the structure of the scenes. Delete all sources of irritation (phones switched off, sign on door, curtains closed). Prepare material, props, costumes, nametags, technological devices.	**Act in-character:** Respect towards all participants is a hard rule. As a facilitator, take the game seriously, but act joyfully. Remain in character all the time. If students leave their character, show explicity that you still are in-character. Make mistakes, show overtly how to embrace them. If allowed or possible, leave smaller groups unattended for short periods of time to let them take responsibility.	**Debrief:** Sitting in a circle, every participant gets to say how they feel and what part in the game they liked. This is not to be commented on, but to show the diversity of perception. Appreciate honest and serious feedback. Point out how the game is tied to curricular learning goals. Make transfer exercises with more traditional methods. Ask for nondisclosure of game and the interaction, so that the game can be run with other groups. Regularly during subsequent weeks, remind students of the role-playing experience and its contribution in the learning process.

3.4.4 Breaks without external contact

During scheduled breaks, we found it best to remain in the classroom. We encouraged avoiding contact with people not participating in the game in order not to disrupt the process of immersion too much. Similarly, engaging in social media during breaks was counterproductive and we asked participants to refrain from it.

For the purpose of facilitation, we made a simplified overview for the educator implementing the unit. The various aspects in Table 2 indicate recommendations for the different phases.

4. DISCUSSION

This paper outlines 17 core principles for the design and facilitation of live action role-playing formats in school settings. The design for this research relies on previous work by scholars and practitioners such as Hugaas and Bowman 2019; Branc 2018; Hammer et al. 2018; Mochocki 2018 (just to mention a few), as well as the 16 international live action role-playing experts interviewed by Geneuss (2019). The 17 principles are not to be understood as a prescriptive model, but as direction and guidance. We are aware that school settings are culturally bound. Therefore, the fact that the 53 cycles of GBR took place exclusively in schools in Southern Germany is a limiting factor in this study. Conclusions have to be transferred carefully to other regions and learning environments. Also, the STARS project has a focus on German literature and language, and it will be subject to further research to broaden the perspective. Another limiting factor is that all live action role-playing games were conducted by the *Starmanufaktur* team.

Even though teachers always took on minor roles, they did not implement the games themselves. They argued that the tool was unknown to them and that it was overwhelming to simultaneously follow the narrative, foresee the students' activities, and interpret a character (Geneuss, Obster, and Ruppert 2020).

Future steps towards encouraging teachers could be pedagogical trainings as well as offering accessible materials to them. The STARS project team suggests setting up workshops on how to implement live action role-playing, based on best practice models for Drama in Education and the principles presented in this paper. Also, we suggest that the material for the unit be gathered in a digital surface with a clear distinction of the different levels of the game, such as phases; in-game and off-game assignments; materials; characters etc.

The principles presented in this paper are a step towards the feasibility of live action role-playing games in schools, but further empirical research is required at this point. Once teachers implement the games themselves, researchers could focus on the parameter "teacher-facilitator" to find out about their impact on the game format, the teacher-student relationship, and the students' subject performance. Moreover, surveys will generate empirical data compiling challenges and indicating how material and training units can best be developed to support pedagogues when they facilitate the units themselves. We are happy to announce that there is remarkable demand for the digital version of our live action role-playing game *The Books that Disappeared*, which as of February 2021, is distributed free of charge across schools in Germany by the Munich Pedagogical Institute.[2]

If teachers, despite accessible material, pedagogical training units, and purposeful game design, still feel that the implementation through external teams is what fits their curricular and pedagogical purpose best, we advocate to supply that demand. If role-playing techniques in schools can only be embedded by role-playing companies or associations, these professionals should not hesitate to offer their services of implementing such units, demanding a multidimensional level of engagement. With low social exposure through simultaneous acting, the students get to explore a curricular theme, social

2 https://medienbox.medienbildung-muenchen.de

interaction, their own personal experience, and esthetical perception of a narrative. To offer this unique experience on a broader scale, we suggest that more external teams specialize in larps and offer games that meet the schools' curricular, institutional, and pedagogical needs. Consequently, teachers could get accustomed to the format and learn on-site how to conduct live action role-playing games, inspiring them to implement this tool themselves in their teaching one day.

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