My school is Hogwarts: Students' social behavior in storified classes

Isabella Aura^a, Lobna Hassan^a and Juho Hamari^a

Abstract

For decades, educators have been exploring various ways to, not only educate, but also to create engaging classrooms and to foster positive social experiences amongst students. To these ends, many educators have now taken steps towards utilizing storification in their pedagogy and classrooms in order to appeal students and positively impact their social relationships. Research, however, is lacking around how storification impacts students' social communities. Through grounded theory methods, 10-day ethnographic fieldwork, participatory observations, interviews with 11 educational staff and focus groups with 79 students at a middle school employing a Harry Potter story theme, this research implies that storification can hinder bullying and students' antisocial behavior. The values and messages teachers delivered through the employed story and change of learning environment and pedagogy manifested teacher dedication and effort to students, which fostered their prosocial behavior in the school.

Keywords

storification, social behavior, learning environment, classroom design

1. Introduction

Schools classrooms are where multidimensional social contexts students are pursuing both social and academic goals [1, 2]. Being part of a group, friendships, or the lack thereof, can have a major impact on students' learning and well-being during childhood and beyond [3, 4]. Furthermore, interpersonal problems may even be the main reason for why teenage students drop out of school [5]. Accordingly, a plethora of researchers have studied the various dimensions of social behavior in educational settings over the decades [6, 7] such as social status, sense of belonging and experiences of being bullied, which differently affect students' relatedness to school, engagement and learning outcomes [3, 8, 9].

Teachers construct classrooms' social atmosphere through the learning environment, pedagogy delivery, and social norms and rules

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EMAIL: isabella.aura@tuni.fi (A. 1); lobna.hassan@tuni.fi (A. 2); juho.hamari@tuni.fi (A. 3)

ORCID: 0000-0001-9540-710X (A. 1); 0000-0002-6201-9159

(A. 2); 0000-0002-6573-588X (A. 3)

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in rows, and relatively plain walls and furniture where learning is often executed through didactic, teacher-centered activities [10]. Within such classrooms, different aspects of education are enabled: curriculum-delivery, pedagogy, a learning atmosphere, social behavior, and social structures amongst students, and between students and teachers [11]. Modifying a classroom environment can and does have an influence on students' academic engagement and behavior [12, 13], which is why it is plausible for educators to positively influence learning outcomes and curb behavioral problems within schools

that aim to support and promote learning, social

interaction and mutual respect in classrooms [2]. A usual classroom learning environment is

a variation of a traditional classroom with desks

To increase the appeal of classrooms to students and enhance learning outcomes, educators have increasingly employed

through the way classrooms are designed.

^a Tampere University, Kanslerinrinne 1, 33014, Tampere, Finland

emerging gameful and playful approaches, such as gamification [14, 15], serious games [16, 17], simulations [18, 19] and roleplay [20, 21] into their pedagogy and learning environments in an effort to make education more engaging and efficient for students (e.g., [22]). One of these practices is adding stories, storytelling and role play to teaching, which teachers and educational professionals have long utilized to make learning more relevant for students. Different terminologies have been used to describe these practices, such as, but not limited to; story- and narrative-based learning, as well as narrative-centered learning environments (e.g., [23, 24, 25]).

Recently, storification emerged as a term connected, not only to storytelling strategies in education, but additionally to broader strategies of engagement online and offline. Storification refers to the holistic use of stories in a way that creates and communicates a narrative to its audience in an engrossing and pervasive way [26]. Storification endeavors to wrap activities inside a story, giving students a chance to learn and create information within said story [27]. Storification aims to go beyond storytelling by letting students comprehensively experience and act out in stories. It can and has been used, for example, as an educational tool [28], which changes the curricula in the form of a story, or as a blueprint for the (re-)design of a physical or virtual learning environment [29].

As the utilization of emerging gameful and approaches and storification playful classrooms continues to increase, we are faced with a research and practice challenge as little known of, especially, storification's influence on students' social communities and behavior. Hence, the purpose of this case study is to examine: How do students experience their social communities (forming friendships, bullying, solidarity) in storified classes? Employing a 10-day ethnographic fieldwork, interviews with teachers and other educational staff, focus groups with 7th and 8th grade students and participatory observations within storified classes, students' experiences of a storified school are examined through grounded theory methods. Such a study is necessary in order to understand the benefits and detriments storification holds, as to utilize it fully in classrooms and schools.

2. Methodology

The aim of this case study is to investigate how students experience their social communities storified classes. An ethnographic fieldwork approach was employed in order to gather authentic, nuanced knowledge on such a complex phenomenon as behavior social and communities. To understand and analyze the feelings, attitudes and experiences of the study participants in an exploratory, rather than a confirmatory manner. grounded methods with a constructivist approach were employed [30, 31].

2.1. Case study description

This case study took place in an elementarymiddle school (K-8), attended by 350 students, 19 teachers and 9 other educational staff. The school is located in the southern USA, in a low economic area with poor home conditions and at-risk children, as described by the school's educational staff and parents. To create engaging, comfortable and home-like school experience for students, the teachers had transformed one hallway, and the four classrooms in it into Hogwarts, the wizarding school of the Harry Potter (HP) series. The transformation was deployed through paintings, murals and decorations, furniture, objects and props fitting to the Harry Potter theme, as can be seen in Figure 1.



Figure 1: Storified Hogwarts classroom

The transformation of learning environments was not only in the physical infrastructure of the classrooms, but in teachers' pedagogical decision-making and practices. The story of Harry Potter was directly incorporated in teaching through different methods, such as reading the HP books as part

of curriculum, school events, group works and multimedia tasks, as well as indirectly via a hidden curriculum [32] that teaches the values and morals the story delivers. Through the holistic change of learning environments, novel pedagogical practices and delivery of hidden curriculum, storification was both directly and indirectly affecting students' daily lives, including their social relationships and behavior. Noteworthily, alongside storification, some teachers had moved from traditional. assigned seating arrangements to flexible and alternative seating, where classrooms had multiple different seating options, such as couches and bean bags matching with the employed theme, and students were allowed to choose their own seats at the start of each class.

2.2. Participants

This study examined students' social behavior in the school's Harry Potter hallway, which includes a total of four classrooms for the 7th and 8th grades, taught by four teachers. Said four teachers, in addition to six other educational staff and the school principal, were interviewed (INTW) individually for this study. Furthermore, 79 students from 7th and 8th grades (12–14-year-olds), attending those classrooms, participated in focus groups (FG) which consisted of three to six students, the average being five per group. The average age of the students was 12.8 years (SD = 0.75). The majority of them were White (89% White, 11% Hispanic), and about half of them were boys (49% boys, 51% girls). Additionally, three parents and nearly 30 school graduates were interviewed in order to get a holistic understanding of the studied phenomenon, however, the data gathered from them was utilized only as supplementary material due to the study's focus on current students and teachers. Table 1 demonstrates the details of participants and collected data.

Table 1Breakdown of participants and data collected

	Number of people	Time	Trans cript sheet s
Observations	≈ 100	10 days; ≈ 60h	40

Educational staff Hogwarts 226 106 hallway min teachers 4 Other 7 In total 11 **Students** 15 groups 7th graders 41 361.8 463 8th graders 38 1 min In total 79 ≈ 70h In total ≈ 130 609

2.3. Procedure and data collection

In addition to interviews and focus groups, was gathered during ethnographic fieldwork by participatory observations in the storified classes for 10 days during school hours in several classes, as well as outside of classes, such as during breaks and lunchtimes. Data was collected by note taking, audio recording and The 11 photographs. educational staff interviews lasted approximately from 10 to 45 minutes, and the 15 focus groups lasted an average of 25 minutes. In order to create a comfortable and open atmosphere, students formed the focus groups with the help of their teachers, so that they consisted of people comfortable with each other, minimizing the risk of potentially placing a bullied student in the same group as the person(s) bullying them.

Participants were assured that participating in the data collection was entirely voluntary, confidential, anonymous, and had no influence on their job or academic performance. Students' guardians received a letter, in which the study was outlined and the guardians could indicate if they wished for their child not to participate. Overall, participants were allowed to withdraw from the study at any point without further explanation. With that, four students decided not to participate in the focus groups. Regardless of participation, all teachers and students received a small gift in the form of a chocolate or candy.

2.4. Analysis

This case study employed grounded theory methods [31], based on a constructivist approach [30], which is an appropriate method to get close to participants' empirical world and

to derive the findings directly from data. The analysis process included coding (initial, and theoretical) [30], constant comparison (data with data, data with codes, codes with codes, codes with categories and categories with categories), as well as memo writing and sorting, in order to elaborate ideas and thoughts about the data [33]. Nonetheless, a grounded theory study is not a linear process [30]; it requires open mindedness and researcher's awareness of their own biases and background, so that categories can inductively emerge from the data and not be forced into preconceived notions [34]. This paper presents preliminary results focusing on one dimension of the gathered data: social behavior in storified classes.

3. Findings

Preliminary emergent coding was conducted (more detailed coding is still ongoing) to largely examine social behavior at the studied school on a continuum of *pro*- to *antisocial behavior*. Emergent coding of prosocial behavior revealed behaviors that foster positive *social atmosphere*, *shared interest*, and *friendships*, while antisocial behavior coding emerged categories on *bullying*, *misconduct* and *communicative language*.

3.1. Prosocial behavior

For an outside observer, the social atmosphere in the school appeared relaxed and cheerful, both during and outside of classroom activities. In the focus groups, students communicated this perceived experience of a positive atmosphere and often described the "cool" school as a (FG3,6,9,12-15), "welcoming" (FG1,8) or "fun" 4,10,11,13,14) place. Students noted that the experienced atmosphere was partly due to the school being small, and partly to teachers' effort in creating an exciting environment for all through the storified classroom design change.

Related to the transformation to storified classrooms, teachers introduced flexible seating, which provided students variability in terms of seating and seating partners. The majority of students described the change from assigned, fixed seats to flexible seating as positive and enjoyable, since it gave them

freedom to choose the appropriate seat for them, as well as a classmate to sit with. The transformation from desks in rows to couches and bean bags created a more open and social space, where, as students stated, it was easier to "talk to people that you usually don't talk to" (FG7) and perhaps find new friends. In one of the focus groups students described the transformation to flexible seating as such:

Student #54: We used to not be able to talk to everyone as much, because we had desks and we couldn't talk to anyone because they weren't in our area. But now, we can talk to them, talk to everyone and get to know everyone.

Student #77: Because we're sitting at the tables or on the couch, you have more than just one person, you have your group you can talk to.

Student #40: And you can sit by different people

Student #49: And you can sit by different people every day, if you want to.

The Harry Potter theme was a shared interest, and a common conversational point. In addition to reading the Harry Potter books in class, teachers incorporated HP in other related pedagogical activities; group work, projects and discussions were common methods to process characters, plotline and events of the books, in order to attain different learning objectives. Beyond curricular purposes, one of the activities teachers devised was a Hogwarts house sorting quiz, which was a playful personality test that sorted students into one of the four Hogwarts houses: Gryffindor, Hufflepuff, Ravenclaw or Slytherin. Such a test had no effect on students' grades or academic performance, but was a way for students to have fun and connect with the story and the environment around them. Nonetheless, the majority of the students remembered the results of the quiz quite clearly, and still enjoyed discussing the questions it had and the percentages they got, although the quiz had been taken weeks, or even months ago:

Student #73: My Slytherin was like 50 percent. Student #11: Jeez! My Slytherin was like 5 percent!

Student #35: Really?

Student #55: You're a Hufflepuff? Student #11: Yeah, I'm a Hufflepuff.

Student #55: I was like the only Ravenclawthere was, like only three of us who were a Ravenclaw and the rest were Hufflepuffs.

A great portion of the students had been at the said school since kindergarten; hence their relationships and *friendships* had perhaps developed already at a young age. Students described that the Harry Potter theme "got their school closer" (FG10,4), facilitating further friendships, collective memories, shared experiences and common talking topics, especially for students who identified as Harry Potter fans. While discussing friendships and forming new ones, students saw improvements in their communication after the transformation in the classrooms took place:

Student #31: Since we're all Harry Potter fans, it helps us communicate better. Because we know what we're talking about, when usually people don't read lots of Harry Potter books, and they're like: "What are we talking about?" So, it's a lot better to make friends.

Interviewer: So, you think that helped; finding new friends through Hogwarts stuff?

Student #42: Yeah, definitely helped.

Student #37: Because you always have something to talk about. Even if you don't know what to talk about, just bring up Harry Potter, because everybody knows about it.

Student #8: I made friends with this girl named (her name) because of Harry Potter. It was last year when we started reading the second book and she was like: "Oh yeah, I know everything about Harry Potter". And I was like: "Really? I really like Harry Potter". And she said: "Yeah". And then we're friends.

Students believed that everyone had friends in the school, and although stating that "everybody gets along with everybody" (FG4,8,10,14), students felt it was natural that smaller groups of friends started to gradually form over the years. It is possible that the HP theme reinforced such grouping yet its effects remain hard to discern. Although the school did not group the students according to Hogwarts houses, the results of the sorting quiz had undoubtedly stuck on students' minds, creating and perhaps discussions leading categorizing of friends. Each house represents a different set of qualities; Gryffindor values bravery and daringness, Ravenclaw involves curious and intelligent students, whereas Slytherins are recognized as ambitious and resourceful. The majority of the school's 7th and 8th graders had been sorted into Hufflepuff, which is considered the house of loyal friends and hard-work. Students described that albeit the sorting quiz had been mostly for fun, it had facilitated social connection with other

students, when finding out which house others are identified as:

Student #16: My friend (friend's name), he'll run through and he'll just hear this one person just say: "I'm from Hufflepuff". He'll be like: "Get over here, we're Hufflepuff too!"

3.2. Antisocial behavior

Discussing antisocial behavior with the students and educational professionals, an explicit, recurrent statement emerged in interviews and focus groups: there was "no bullying in the school at the moment" (FG1,4,8,13-15; INTW1,4). Teachers reported a great change in students' behavior and misconduct during the last few years, approximately at the same time as storification had gradually taken place. One of the teachers who had previously worked in the Harry Potter hallway, described that the hallway had a lot of discipline problems, such as fights and bullying, before. However, today, that has not happened in a while, and the teacher believed it was due to the perceived ownership and pride students have with their school:

Teacher #2: There used to be discipline problems all the time in that [7th and 8th grade] hallway, because you had older kids and they're getting to the age where they're close to being able to drop out of school legally. And so, a lot of times with that age, you'll see them that they're just shutting down, because they're getting ready to just drop out. And then there would be fights. When I was [a teacher] in that hall, we would see fights often with the bigger kids. And that has not happened in a while. And there's a lot more ownership- I think the kids have an ownership with the school and more of a pride with it.

Similarly, many interviewees recalled bullying incidents from the past, stating that "it was years ago" (FG6) or "we've had bullying in the past" (FG2,3,7,9; INTW4). The majority of the students expressed having a close relationship with their teachers and the principal, trusting that the school staff would intervene on possible bullying incidents, stating that the teachers "do not tolerate bullying" (FG8,5). Students discussed incidents in the past where teachers have intervened when needed. When discussing these incidents of overt bullying, some students employed characters from the Harry Potter series to

communicate their experiences. The same occurred when reflecting on teachers or classmates at large:

Student #46: I want to tell you all about my bullying experience: I'm gonna call him Voldemort [the main antagonist of the HP series] ... Because he's like Voldemort, he's just evil. So, Voldemort would always... he wasn't so much of a physical bully as he was a mental bully.

Teachers also noted this student identification with the characters and story theme and used it themselves when communicating about negative situations:

Teacher #8: They connect with Harry [Potter], because for a lot of these kids the school is their safe place, their comfort zone, and where they belong. I think a lot of our kids live in a situation similar to Privet Drive [Harry's "home"], unfortunately. Or there's just a lot of difficulties at home.

Here, the teacher refers to Privet Drive, in which Harry Potter spent his childhood with poor home conditions, always stating that Hogwarts, the wizarding school, was more of a home for him than Privet Drive ever was.

Nonetheless, compatible with observation data, students also talked of relatively less serious antisocial behavior, such as "joking around" (FG8,9,12) or "picking on or teasing others" (FG4,8) which students did not characterize as bullying. However, sometimes just "joking around" might have gone too far, perhaps creating differing opinions of what is considered as bullying and what is not:

Student #32: There's just a lot of joking around. I mean, some people get hurt, but they get over it.

Student #72: Yeah, they get us. Honestly, it's OK. You know, there's some people that just, you know, take it too far.

Student #32: Nothing serious. We never have a problem with it.

Student #72: Because we all bully each other and we take it as jokes. We don't take it seriously.

Additionally, shortly before the research fieldwork, there was an incident where one of the students had broken a chair, and the guilty person had never confessed, which caused trouble for the whole class. As a disciplinary procedure, students' seats were assigned by

teachers until the person would confess, which students found unfair and frustrating. Students stated that flexible seating had facilitated social connection with others, whereas assigned seats hindered their opportunities to find new friends or maintain the social connections they had initiated before:

Student #53: We have friends but it constantly keeps on getting harder to keep friends because we're just getting assigned seats in every class. We got assigned seats at lunch-

Student #69: Assigned seats at class, assigned seats at lunch and only time we get to sit wherever is (one of the teacher's class).

Student #53: Yeah. We don't have any-like the only times we get to talk to our friends is snack. Student #69: Breaks and sometimes lunch, if we [happen to] sit close to each other.

This perhaps indicates that while serious bullying and misconduct has significantly decreased due to teachers' effort and storification, it still occurs in milder, and perhaps more socially acceptable ways. The noted change, however, was significant for the students and teachers, and the students themselves disliked it (e.g., how they disliked the change back to fixed seating) as it disrupted aspects of schooling that have become enjoyable for them.

4. Discussion

Teachers implemented storification in hopes to provide a home-like, comfortable place for students to learn in, engaging physical learning environments and an accepting social atmosphere. Teachers wanted to create, not interesting and unique learning environments, but open and social classrooms for students to act in. As our findings show, teachers had gradually worked towards these goals, as students felt comfortable with their environment and described the social atmosphere as "welcoming" and "fun". These perceived feelings of social support and community can have long-term effects on students' lives, for example increasing interest towards further education [2] and preventing future harmful behavior, such as drug use [35], thus addressing the achievement gap of children from lower socio-economic classes [11]. Furthermore, creative spaces with flexible seating facilitate versatile social situations,

where students can learn social skills more than they presumably would have learned in traditionally designed classrooms with desks. These creative spaces could have further fostered students' academic interests since social classrooms and social skills positively correlate with academic achievement [7, 36].

In addition to reading the Harry Potter books in English classes, various educational and leisure activities around the HP series were utilized both in classrooms and beyond classes. for example in the form of HP themed run events and the Hogwarts house sorting quiz. Teachers saw that the values and messages that the HP series delivers (subjects such as friendship, bullying, rule-breaking and growing up in a dysfunctional family) [37] can empower and inspire students (whether they were fans of the HP series or not) to rise above their circumstances as well as facilitate social interaction and friendships, which they attempted to foster through this integration of the series in classrooms. Social interactions were supported by collective language and codes employed from the HP series that the and the teachers students utilized communicate and reflect their experiences of, for example, bullying and the school environment. According to Bernstein's code theory [11], this change of language may serve as an intermediary of social structures and shape adolescents' identities and their views of the world. Especially for children coming from lower socio-economic classes, schools can act as a strong independent force for diminishing achievement gaps through the way language is utilized and developed, and how pedagogy is delivered within classrooms [11], for which storification might be an appropriate tool.

While many schools have utilized Harry Potter books or other related activities in their education, nevertheless, some studies imply that perhaps schools and teachers have not harnessed the HP phenomenon to its full extent, especially what comes to its literacydeveloping potential and student inspiration and empowerment [38, 39]. However, the fundamental intention of the HP series is not to educate, but to provide entertainment, which is why their moral teachings may need assessment and conscious utilization in classrooms. For example, the sorting quiz that was used at the school to organize students into their Hogwarts houses was playful, fun, and fostered social communities at the school. Studies show that

perceived house identity can empower especially shy students, provide them inclusion into a social identity group and facilitate a sense of belonging [40]. Nonetheless, identification with an exclusive Hogwarts house might induce social cliques, or even rivalry between students [39], promoting antisocial behavior.

Even though student misconduct and experienced bullying had notably decreased over the last few years with the gradually implemented transformation to the classrooms. storification alone is not an immediate solution to antisocial behavior, nor is the Harry Potter theme. Special attention is to be paid to carefully selected stories and the moral values they deliver [41]. In educational contexts, stories that indirectly showcase the value of education can especially be employed to provide a purpose for education to students to perform better, and additionally transport students to different realities where they might be inclined to behave more positively, as indicated by theory on the utilization of storification in classrooms contributed by this research project [41] and other earlier research [27]. Through extensive effort, cooperation and dedication, the teachers in the school consciously aimed to create an engaging and interesting learning environment along with pedagogical changes, which were visible to students, resulting in feelings of ownership and pride within the students. Students perceived dedication from their teachers which appears to have engaged them and potentially decreased misconduct. Furthermore, opportunities for students to work with peers, fulfilling their social needs [42], perhaps enhanced student motivation to behave more responsibly and prosocially, creating a rather rewarding circle for both students and teachers, because student motivation and positive behavior can, in itself, lower teachers' stress levels, and improve teaching efficacy and job satisfaction [43].

In line with Urdan & Schoendelfer [42], we encourage schools and educational professionals to pay attention to the features of learning environments and classroom designs, as they both affect students' social and academic behavior. We also wish for teachers to strive to familiarize themselves with topical phenomena that their students are interested in and build exercises and activities around them [38], in order to engage and motivate students both socially and academically.

5. Limitations and future research

While the selected school was particularly unique for exceptionally its implementation of storification, and was studied from different vantage points, it remains a singular case study. Nonetheless, this study provides a point of departure for more research on storification that it is now becoming increasingly adopted in educational institutions. The studied school was rather small, which could explain some aspects of, for example, the atmosphere at school. As the data gathering period was relatively short, some findings may be difficult to discern, for example, we cannot fully discern which aspects of the decreased misconduct were due to storification and which resulted from external events.

The ethnographic fieldwork was conducted by one researcher. While this may have reinforced trustful and respectful relations between the researcher and participants [44], it may have contributed to researcher bias. This was taken into account on different stages of the research through discussions with experienced co-authors. Results and observations were actively presented in research lectures and seminars for larger reflections.

We encourage future researchers to examine the effects of storification through pre- and post-implementation comparisons, preferably through mixed methods. Students' social behavior and social communities are complex structures with many influencing factors that should be examined from many vantage points, emphasizing children's own views and perceptions. Understanding the utilization of storification in education and its effects on both students' and teachers' attitudes, behaviors and experiences, can provide us significant information on how to improve schools, classrooms and pedagogy even further.

Finally, the present paper is a short treatise of the first emerging themes in a wider overall study, therefore, the paper is limited in terms of breadth and depth even though it manages to elucidate some of the major aspects of social behaviors related to and emerging from storification. Further expansion of this research efforts will serve to paint a more holistic picture as well as to draw more granular observations and interpretation of the meaning and practice of storification in education.

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7. References

- [1] J. Juvonen, T.B. Murdock, Grade-Level Differences in the Social Value of Effort: Implications for Self-Presentation Tactics of Early Adolescents, Child Dev. 66 (1995) 1694–1705. doi:10.2307/1131904.
- [2] A.M. Ryan, H. Patrick, The Classroom Social Environment and Changes in Adolescents' Motivation and Engagement During Middle School, Am. Educ. Res. J. 38 (2001) 437–460. doi:10.3102/00028312038002437.
- [3] J.-S. Lee, The Relationship Between Student Engagement and Academic Performance: Is It a Myth or Reality?, J. Educ. Res. 107 (2014) 177–185. doi:10.1080/00220671.2013.807491.
- [4] E.A. North, A.M. Ryan, K. Cortina, N.R. Brass, Social Status and Classroom Behavior in Math and Science during Early Adolescence, J. Youth Adolesc. 48 (2019) 597–608. doi:10.1007/s10964-018-0949-8.
- [5] M. Terry, The Effects that Family Members and Peers Have on Students' Decisions to Drop Out of School, Educ. Res. Q. 31 (2008) 25–38.
- [6] B.J. Kochenderfer, G.W. Ladd, Peer Victimization: Cause or Consequence of School Maladjustment?, Child Dev. 67 (1996) 1305–1317. doi:10.2307/1131701.
- [7] K.R. Wentzel, K. Caldwell, Friendships, Peer Acceptance, and Group Membership: Relations to Academic Achievement in Middle School, Child Dev. 68 (1997) 1198. doi:10.2307/1132301.
- [8] Z. Cemalcilar, Schools as Socialisation Contexts: Understanding the Impact of School Climate Factors on Students' Sense of School Belonging, Appl.

- Psychol. 59 (2010) 243–272. doi:10.1111/j.1464-0597.2009.00389.x.
- [9] C. Furrer, E. Skinner, Sense of relatedness as a factor in children's academic engagement and performance, J. Educ. Psychol. 95 (2003) 148–162. doi:10.1037/0022-0663.95.1.148.
- [10] M. Stewart, Understanding learning: theories and critique, in: L. Hunt, D. Chalmers (Eds.), Univ. Teach. Focus A Learn. Approach, Routledge, New York, 2012: pp. 3–20. doi:10.4324/9780203079690-1.
- [11] B. Bernstein, Towards a Theory of Educational Transmissions, Routledge, London, 2003. doi:10.4324/9780203011430.
- [12] P. Barrett, F. Davies, Y. Zhang, L. Barrett, The impact of classroom design on pupils' learning: Final results of a holistic, multi-level analysis, Build. Environ. 89 (2015) 118–133. doi:10.1016/j.buildenv.2015.02.013.
- [13] C.A. Guardino, E. Fullerton, Changing Behaviors by Changing the Classroom Environment, Teach. Except. Child. 42 (2010) 8–13. doi:10.1177/004005991004200601.
- [14] J. Hamari, Gamification, in: G. Ritzer, C. Rojek (Eds.), Blackwell Encycl. Sociol., John Wiley & Sons, Ltd, Oxford, UK, 2019: pp. 1–3. doi:10.1002/9781405165518.wbeos132 1.
- [15] R.N. Landers, Gamification Misunderstood: How Badly Executed and Rhetorical Gamification Obscures Its Transformative Potential, J. Manag. Inq. 28 (2019) 137–140. doi:10.1177/1056492618790913.
- [16] T.M. Connolly, E.A. Boyle, E. MacArthur, T. Hainey, J.M. Boyle, A systematic literature review of empirical evidence on computer games and serious games, Comput. Educ. 59 (2012) 661–686. doi:10.1016/j.compedu.2012.03.004.
- [17] N. Vos, H. Van Der Meijden, E. Denessen, Effects of constructing versus playing an educational game on student motivation and deep learning strategy use, Comput. Educ. 56 (2011) 127–137. doi:10.1016/j.compedu.2010.08.013.
- [18] D. Rumore, T. Schenk, L. Susskind,

- Role-play simulations for climate change adaptation education and engagement, Nat. Clim. Chang. 6 (2016) 745–750. doi:10.1038/nclimate3084.
- [19] N. Rutten, W.R. Van Joolingen, J.T. Van Der Veen, The learning effects of computer simulations in science education, Comput. Educ. 58 (2012) 136–153. doi:10.1016/j.compedu.2011.07.017.
- [20] Y. Cakici, E. Bayir, Developing Children's Views of the Nature of Science Through Role Play, Int. J. Sci. Educ. 34 (2012) 1075–1091. doi:10.1080/09500693.2011.647109.
- [21] P. Heyward, Emotional Engagement Through Drama: Strategies to Assist Learning through Role-Play, Int. J. Teach. Learn. High. Educ. 22 (2010) 197–203.
- [22] T.W. Malone, Toward a Theory of Intrinsically Motivating Instruction, Cogn. Sci. 5 (1981) 333–369. doi:10.1207/s15516709cog0504 2.
- [23] J.P. Rowe, L.R. Shores, B.W. Mott, J.C. Lester, Integrating learning, problem solving, and engagement in narrative-centered learning environments, Int. J. Artif. Intell. Educ. 21 (2011) 115–133. doi:10.3233/JAI-2011-019.
- [24] G. Dettori, A. Paiva, Narrative learning in technology-enhanced environments: An introduction to narrative learning environments, in: N. Balacheff, S. Ludvigsen, J. de Ton, A. Lazonder, S. Barnes (Eds.), Technol. Learn. Princ. Prod., Springer Netherlands, 2009: pp. 55–69. doi:10.1007/978-1-4020-9827-7 4.
- [25] S.W. McQuiggan, J.P. Rowe, S. Lee, J.C. Lester, Story-based learning: The impact of narrative on learning experiences and outcomes, in: B.P. Woolf, E. Aïmeur, R. Nkambou, S. Lajoie (Eds.), Int. Conf. Intell. Tutoring Syst., Springer, Berlin, 2008: pp. 530–539. doi:10.1007/978-3-540-69132-7 56.
- [26] K.M. Madsen, M. Skov, P. Vistisen, How to design for exploration through emergent narratives, Digit. Creat. 31 (2020) 234–244. doi:10.1080/14626268.2020.1784233.
- [27] S. Deterding, Make-Believe in Gameful

- and Playful Design, in: P. Turner, J.T. Harviainen (Eds.), Digit. Make-Believe, Springer, 2016: pp. 101–124. doi:10.1007/978-3-319-29553-4 7.
- [28] S. Akkerman, W. Admiraal, J. Huizenga, Storification in History education: A mobile game in and about medieval Amsterdam, Comput. Educ. 52 (2009) 449–459. doi:10.1016/j.compedu.2008.09.014.
- [29] T. Jantakoon, P. Wannapiroon, P. Nilsook, Virtual Immersive Learning Environments (VILEs) Based on Digital Storytelling to Enhance Deeper Learning for Undergraduate Students, High. Educ. Stud. 9 (2019) 144–150. doi:10.5539/hes.v9n1p144.
- [30] K. Charmaz, A. Bryant, Grounded theory and credibility, in: D. Silverman (Ed.), Qual. Res. Issues Theory, Method Pract., 3rd ed., SAGE, Los Angeles, 2011: pp. 291–309.
- [31] B.G. Glaser, A.L. Strauss, Discovery of Grounded Theory: Strategies for Qualitative Research, Aldine Transaction, New Brunswick, London, 1999.
- [32] C.D. Jerald, School Culture: The Hidden Curriculum, The Center for Comprehensive School Reform and Improvement, Washington, DC, 2006.
- [33] J.W. Creswell, Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative, 4th ed., Pearson, Boston, 2011.
- [34] G. McGhee, G.R. Marland, J. Atkinson, Grounded theory research: literature reviewing and reflexivity, J. Adv. Nurs. 60 (2007) 334–342. doi:10.1111/j.1365-2648.2007.04436.x.
- [35] E. Schaps, D. Solomon, The role of the school's social environment in preventing student drug use, J. Prim. Prev. 23 (2003) 299–328. doi:10.1023/A:1021393724832.
- [36] C.K. Malecki, S.N. Elliott, Children's social behaviors as predictors of academic achievement: A longitudinal analysis, Sch. Psychol. Q. 17 (2002) 1–23. doi:10.1521/scpq.17.1.1.19902.
- [37] A. Lennard, Harry Potter and the quest for values: How the boy wizard can assist young people in making choices, Ph.D. thesis, Australian Catholic University, Banyo, 2007.

- doi:10.4226/66/5a94bfe75e4f6.
- [38] S. Dempster, A. Oliver, J. Sunderland, J. Thistlethwaite, What has Harry Potter Done for Me? Children's Reflections on their 'Potter Experience,' Child. Lit. Educ. 47 (2016) 267–282. doi:10.1007/s10583-015-9267-x.
- [39] L. Hassan, J.T. Harviainen, J. Hamari, Enter Hogwarts: Lessons on how to gamify education from the wizarding world of Harry Potter, in: Proceedings of the 2nd International GamiFIN Conference (GamiFIN2018), Pori, Finland, 2018: pp. 30–39.
- [40] M. Harrison, Harry Potter and the shy college classroom student: a perceived sense of belonging through social identity and a Hogwarts House, Ph.D. thesis,Pepperdine University,Malibu, CA, 2020.
- [41] I. Aura, L. Hassan, J. Hamari, Teaching within a Story: Understanding storification of pedagogy, Int. J. Educ. Res. 106 (2021). doi:10.1016/j.ijer.2020.101728.
- [42] T. Urdan, E. Schoenfelder, Classroom effects on student motivation: Goal structures, social relationships, and competence beliefs, J. Sch. Psychol. 44 (2006) 331–349. doi:10.1016/j.jsp.2006.04.003.
- [43] R.J. Collie, J.D. Shapka, N.E. Perry, School climate and social-emotional learning: Predicting teacher stress, job satisfaction, and teaching efficacy, J. Educ. Psychol. 104 (2012) 1189–1204. doi:10.1037/a0029356.
- [44] M. Herron, Ethnographic Methods, Young People, and a High School: A Recipe for Ethical Precarity, Anthropol. Educ. Q. 50 (2019) 84–96. doi:10.1111/aeq.12278.