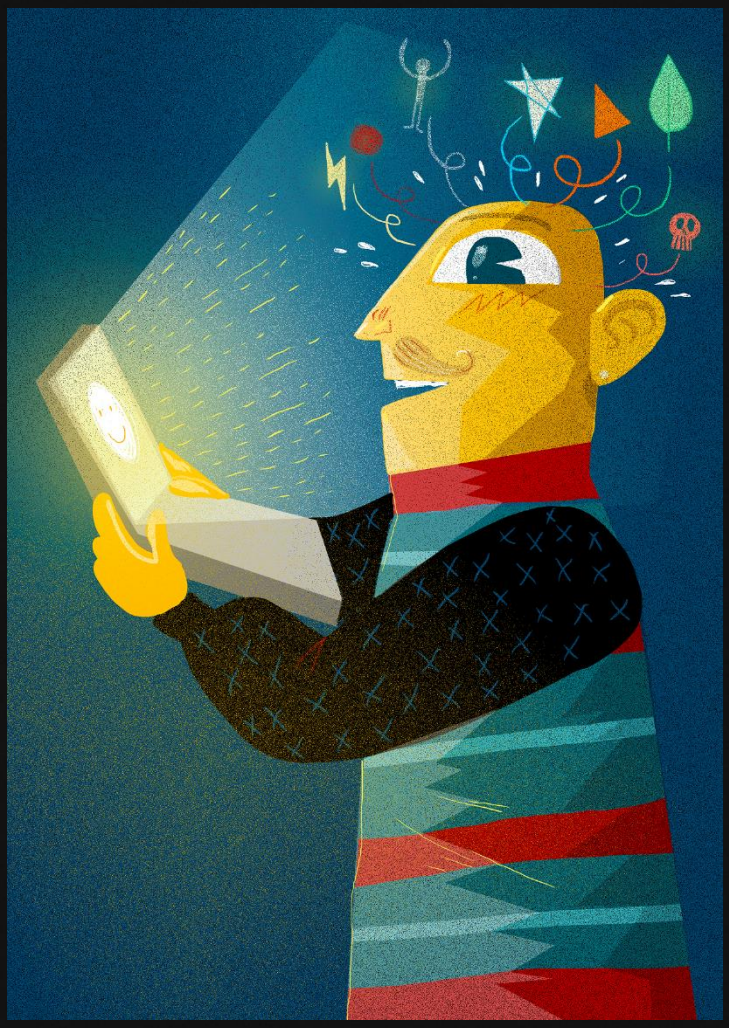
Game Environments



Untitled. Illustration by Gabriel Alayza Moncloa.

Special Issue

Revisiting Teaching and Games. Mapping out Ecosystems of Learning

edited by

Björn Berg Marklund, Jordan Loewen-Colón and Maria Saridaki

Issue 15 (2021)

Teaching and Games. Introduction to the Special Issue
by Björn Berg Marklund, Jordan Loewen-Colón and Maria Saridaki, 1

articles

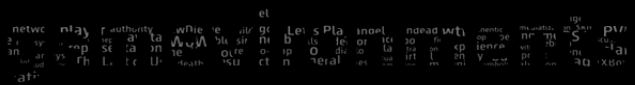
Towards an E-class Stimulating Social Interactivity based on Digitized and Gamified Brainstorming
by Stéphane Gobron, Corentin Barman, Artan Sadiku, Xavier Lince and Isabelle Capron-Puozzo, 19

Bible Games as Religious Educational Tools in Seventh-Day Adventist Church. A Ludic Inventory
by Allan Macedo de Novaes and Erick Euzébio Lima, 56

Still in Another Castle. Asking New Questions about Games, Teaching and Learning
by Tobias Staaby, 102

The Ethics of Citizen Science and Knowledge Games. Five Emerging Questions About Games that Support Citizen Science
by Karen Kat Schrier, 130

The Allegorical Build. *Minecraft* and Allegorical Play in Undergraduate Teaching
by Darren Wershler and Bart Simon, 197



reports

Let the Magic Circle Bleed. Bridging the Gap Between Games and Reality

by Jessica Creane, 237

Learning to Do Fieldwork through Role-Playing. A Class Experiment

by Adele Del Sordi, 267

The Secret Chamber of Interdisciplinary Collaboration. Negotiating *OutSmart!* A Serious Game for Adolescents

by Suzana Jovicic, Barbara Göbl and Dayana Hristova, 277

Insider Makes the Deal Easy. An Online Speaking Class Using a Social Deduction Game

by Taku Kaneta, 298

Personas as Character Sheets. A Multipurpose Tool When Using Role-Play in Design Education

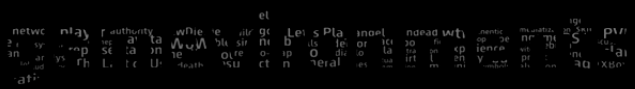
by Erik Lagerstedt and Kajsa Nalin, 306

Teaching Music Theory through Games. To Play, or Not to Play?

by Stavroula Mpoti, 323

Eastern European Courage through Game Art. The First Two Years of the Game Art Programme at University of Theatre and Film Arts, Budapest (2019–2021)

by Judit Radák and Szabolcs Pálfi, 329



The Unlucky Hans. The Difficulties of Adapting Fairy Tales as Text-Based Games for Young Readers

by Michael Schlauch, 351

Spreading Learning through Fake News Games

by Karen Kat Schrier, 362

Teaching People What They Already Know. Designing Game Design Courses

by Thais Arrias Weiller, 380

Introduction

Teaching and Games. Introduction to the Special Issue

Björn Berg Marklund, Jordan Loewen-Colón and Maria Saridaki

Abstract
Previous special issues from gamevironments have explored, e.g., games' entanglements with democracy (Pfister, Winnerling and Zimmermann 2020), nationalism and identity (Kienzl and Trattner 2019), ethics, and sociocultural developments (Grieve, Helland, Radde-Antweiler and Zeiler 2018). In this special issue, we hope to contribute to these explorations further by anchoring them in a specific environment: education. Through education, we encourage students to develop critical literacies that prepare them to analyse society, culture, politics, and ethics. Through the use of games, as well as the *making* of games, teachers are trying to find ways to empower students further in these pursuits. Games can provide meaningful spaces for learning and discourse, but in which ways does the actual *game* contribute to the space – in which ways might they detract from it? Understanding games and education is to understand the role of technology in a crucial part of society, and the contributions in this special issue will look at games as vehicles of learning, teaching, activism, exploitation, culture, and politics.

Keywords: Teaching, Games, Pedagogy, gamevironments

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De-mystifying Gaming and Pedagogy

> "We must rapidly begin the shift from a 'thing'-oriented society to a 'person'-oriented society. When machines and computers [...] are considered more important than people, the giant triplets of racism, materialism and property rights are incapable of being conquered." (King 1967)

Admittedly, starting any text with a Martin Luther King Jr. quote is rarely a sign of high-quality content or author effort. But to defend our choice – we are doing it not only because the quote itself has a relevant message, but also to counter the appropriation of his words in *Digital Game-Based Learning* (Prensky 2001a). In the arguably most influential piece of writing in the debate of games' intersection with learning and teaching, Marc Prensky titles his first chapter *Fun at last!* and treats movements towards digital game-based learning as movements towards civil rights and emancipation from oppressive institutions. However, games – as all technology – have never been unbiased, just, equally distributed, or somehow *neutral* in their representations of subject matters. Accepting games as not just learning objects, but also harbingers of social justice, is, to say the least, problematic. This type of hyperbolic digital game-based learning language is, however, still a recurring part of many discussions about games and education. The imagined qualities of the games are emphasised and contrasted with an image of the reluctant teacher or stale education environment. Games and education are far more complex than this framing wants to acknowledge. Games need to be critically analysed, and they might be about what games *teach* players, and rather how teachers and students teach and learn when games are a component of their pedagogical process.

So, this special issue is not just about game-based learning – it is about teaching and games as a broader concept. It explores the ecosystem of unique relationships between players, creators, and those who try to facilitate spaces for meaningful play. If we hope for games to reach their most meaningful potential in – and *as* – educational environments, starting an authentic and open dialogue of peoples' intentions and the medium's failures is crucial. As a community, we need more stories, experiences, practices, and theories of teaching to understand these complex environments of learning. Putting games at the forefront of these discussions hides

these aspects of the environment, and the *thing* becomes the standard that education is compared to. Thus, the issues' title of *teaching* and games.

> "Uncritical depictions of games as well-designed learning environments is also problematic because such arguments can easily be refurbished to suit particular economic interests prevalent in the gaming industry. This might pose a threat to the reliability and credibility of game studies as a field of research." (Arnseth 2006)

Already in 2006, Arnseth described the potentially dangerous path we are going down if we uncritically accept games as vehicles for positive social transformation. Both education and game scholarship could become subservient to the whims of the commercial technology sector and the game industry. With its notoriously questionable ethics, hostile labour practices (Cote and Harris 2021, Dyer-Witheford and de Peuter 2006), and discrimination (Hackney 2018), the game industry might not be the type of guest one would unquestionably invite into their classroom. The articles and reports in this special issue gives insights into whether Arnseth's concerns were well-founded. But they also reveal ways in which teachers, students, and developers have employed a critical perspective in their use and creation of games. By doing so, they exemplify the progress we can make in the practice and research on game-based learning while still countering the dangers Arnseth warned about.

Games are not created in a vacuum. They do not automatically inject learning and premediated meaning into the settings in which they are used or the people playing them. Every game is shaped by the context in which it is made. The social and cultural setting, the ambitions (and biases) of the designer, and the technologies used, all influence the colours, actions, narratives, and characters we ultimately see on our screens. But whether the game creates a meaningful space for learning, exploration, and engagement is ultimately up to the people who find a place for the game in the

real world, and the people who play them. This complex and living intertwining between the designer's visions and the students', teachers', museum guides', and journalists' actualisation is, however, poorly understood. It is often the *thingness* of games, not the persons involved, which captures peoples' attention – flashy visuals and impressive technologies overshadow the work of the person who makes the meaningful play space happen. In 21st century rhetoric of games and learning, the person has, in fact, been reduced to being subservient to games, *needing* them to be able to learn; being *digital natives* who cannot function outside their game environment (Prensky 2001b). While there is a plethora of research showing the inherent falsehood of this rhetoric, it is still used as a frequent argument in support of policy change in education (Koutropoulos 2011, Kirschner and De Bruycke 2017).

The antidote against this type of rhetoric is, perhaps ironically, education itself. Teaching students how to design, critique, and analyse allows them to see how information in games is constructed, and thus how it can be skewed and biased. Teaching teachers how games function allows them to see what games can bring to their pedagogical process, but also the new challenges of inclusivity and exclusion they might bring. Developers who create games, and people who want to *use* games for different public outreach activities, face challenges that are rarely acknowledged in academic or popular discourse. It is worth asking ourselves: when we think about the potential of gameplay for teaching, how can we better consider the ecosystem of unique relationships between players, creators, and those who try to facilitate spaces for meaningful play?

To this aim, in this special issue we are less interested in contributing more ink to the perennial discussions of whether games themselves are effective learning tools (whether measured through statistics or self-reported engagement of students), or

how the natural *anatomy* of games and game design is synonymous with good learning. In this special issue, the presented articles do not focus on *games*, they focus on the educational settings, pedagogical processes, the individuality of students, and the social, cultural, and political environments in which games are situated. It also examines the ways in which we teach students *about* games, and how games can be created *for* educational environments. In short, what happens when the person – and not the technology – becomes the focus of development and design? In this special issue, we want to curate an archive of accessible stories of successes and failures involving games, gaming, and pedagogy. Sharing both positive and negative experiences is a necessity if we want games to ultimately become accessible to everyone. Starting an honest and open dialogue is a necessity if we hope to understand what, and how, games contribute to teaching, and vice versa.

Like teaching, gameplay is environmental. The social and cultural setting, the ambitions (and biases) of designers, educators and players, and the technologies used all influence the colours, moments, stories, and characters we ultimately experience on our screens. Gameplay is at its most meaningful when we intentionally put play and its environment in dialogue, making space for learning, exploration, and engagement. However, understanding the living, complex, and dynamic intertwining between the inhabitants of this ecosystem and the actualising of meaningful teaching has proven difficult. It is often the *thingness* of the game, not the persons involved, which captures our attention – flashy visuals and impressive technologies overshadow the unique qualities of those who gather around the screens, who create experiential environments of gaming hardware, and who code and curate the pixelating properties of gameplay. Games educate us, challenge us, and generate novelty in how we relate to ourselves and each other. They help us learn that failure can be fun and encourage us to explore. If we hope for games to reach their most meaningful

potential in – and as – educational environments, starting an authentic and open dialogue of intentionality and failure is crucial. As a community, we need stories, models, practices, and theories of teaching to map out the complex ecosystem of learning. We hope this special issue contributes to the growing community.

Games on the Fringe. Explorations in Academia and in Indie Development

To properly examine games and teaching, we both need to critically analyse their current foundation, but also look at the its fringes. To that end, this special issue aims to provide a diversity of perspectives from the entire gaming ecosystem: the developers, the facilitators, and the players (whether they are students or someone else). In these articles and reports the authors share their hands-on experiences with games and teaching. The contributions discuss how to teach game design, how to empower students and support student activism with games, exploring the boundaries between games and reality, and creating new games and game technologies for new forms of teaching.

In her report *Teaching People What They Already Know. Designing Game Design Courses*, Thais Arrias Weiller – an indie game developer and game design teacher – describes her experiences creating new higher education courses to teach students about game design. One of the challenges they faced when teaching game design, is that game design is something everyone feels like they already know. Creating playful activities is a nebulous intuitive action everyone participates in throughout their lives – so, how do you create a course about game design that challenges students and makes this nebulous activity into something more focused, and gives students directions for how they can improve their design knowledge? By looking at literature

and examining the game industry itself, Weiller and her colleagues improved their approach to teaching games by identifying what game design *is*. Thus, their report will both be a valuable resource for those that teach game design (on any education level), as well as those who might want some inspiration of where to turn to learn more about different design topics.

In their report *Eastern European Courage through Game Art. The First Two Years of the Game Art Programme at University of Theatre and Film Arts, Budapest (2019 – 2021)*, Judit Radák and Szabolcs Pálfi share their experiences starting a new programme about games and art in a highly pressured and volatile environment that is unlikely to ever be replicated. This report is an intimate account of what it is like running a graduate level education programme, the first of its kind in Hungary, in a hostile political climate, during a pandemic, and after the tragic loss of a colleague that was instrumental to the programme's creation. Their two-year-long journey as teachers went far beyond pedagogical challenges and involves political pressure, oppression, and a surge of student activism and solidarity, leading to protests against government regulations on the university. The authors worked alongside these students, and saw their students create games to gather support for their activism, ranging from human chains to occupation of the university campus.

In Karen Kat Schrier's report contribution to the issue, *Spreading Learning through Fake News Games*, she shares her experiences using three games – *Harmony Square* (2020)*, Fake it to Make it* (2017)*,* and *Troll Factory* (2019) – to teach graduate students critical literacies, and have discussions about fake news and democracy. Her work was conducted during a time where misinformation was reaching a crescendo (in an era where it was already loud): the spring of 2021, a year into the Covid-19 pandemic. However, her teaching process did not stop at the use of these games. With the aim

of helping the students develop their critical literacies further, the course also shows them how information is *designed* by letting them design their own fake news games. By both playing games and creating them, students learn to both critically analyse information as it is presented, but also understand the nature of the presentation medium itself.

In Jessica Creane's report *Let the Magic Circle Bleed. Bridging the Gap Between Games and Reality* the award-winning game and immersive experience designer offers important new critical concepts for rethinking how it is that games transform us. Drawing from the Nordic larp community, Creane develops the concept of *bleed* to take into account the way identity and emotion can be transferred during play in and outside of the membranous magic circle. With highlights and examples from her career in interactive theater, Creane shows that if designers and educators actively take into account the way bleed functions in personal transformation, new opportunities for learning become available.

Developing and Designing Games for Teaching

Another important perspective for this special issue is the pragmatic side of games and teaching. There is plenty of research being done to evaluate the potential effectiveness of games already being used in classrooms, but the actual creation and implementation of the used games are often hidden away in a methodological black box. The process of creating games, game technologies, or classroom activities is complicated and carries with them benefits and downsides that can significantly transform teachers' working processes and students' pedagogical journey. Understanding this process is essential in understanding what games can actually *do*.

To this aim, the authors of these contributions have shared their hands-on experiences of implementing and creating games in and for their teaching.

In their report *Personas as Character Sheets. A Multipurpose Tool When Using Role-Play in Design Education*, Erik Lagerstedt and Kajsa Nalin describe their experiences of using role-playing techniques when teaching User Experience Design in an undergraduate programme in Sweden. Their pedagogical approach takes inspiration from tabletop role-playing games and live action role-playing games, as they set up different scenarios for their students and give them character sheets with descriptions of their own fictional personas. The teachers join in on the role-playing as well as they play characters alongside the students, aiming to make their work more challenging, and presenting them with unexpected problems as well as possibilities. By establishing this fictional environment where students can explore User Experience Design *in character*, rather than as just themselves, Lagerstedt and Nalin's process encourages students to tackle design challenges from new perspectives.

In the report *Learning to Do Fieldwork through Role-Playing. A Class Experiment* by Adele del Sordi, and *Insider Makes the Deal Easy. An Online Speaking Class Using a Social Deduction Game* by Taku Kaneta, you will find experiments with games as pedagogical tools for teaching students important lessons under the limitations of pandemic-era education. Del Sordi has designed a fun and comprehensive role-playing game to teach students the joys and challenges of doing fieldwork. Kaneta engages students in creative linguistic play of the game *Insider* (2016) to help teach English as a second language to first-year Japanese university students. Each shares the stories of their success and challenges in implementing games into their teaching and possible paths for making their teaching even better going forward.

In his report *The Unlucky Hans. The Difficulties of Adapting Fairy Tales as Text-Based Games for Young Readers* Michael Schlauch recounts his process of designing an interactive hypertext game. Schlauch used the open-source interactive narrative creation tool *Twine* (2021) in an attempt to translate an old fairy tale, *Hans in luck,* and make it more engaging and approachable for young readers. He shares with us what he deems to be a failed experiment and highlights design decisions that may have contributed to this failure, and also discusses the drawbacks and opportunities of converting existing literary works to an interactive format. Through this experience, Schlauch explores what might be lost in translation between the games medium and other forms of media.

Stavroula Mpoti shares with us her viewpoints on the unexpected outcomes of games based teaching and learning through games, by presenting her first attempt to incorporate games into her music theory class. Mpoti attempted to change the sterile traditional way of learning and shared with us a new fun side of music theory, in her attempt to invite her students to *play (with) music*.

In their article *Towards an E-Class Stimulating Social Interactivity based on Digitized and Gamified Brainstorming* Stéphane Gobron, Corentin Barman, Artan Sadiku, Xavier Lince and Isabelle Capron-Puozzo present a case study of the creation of a game-inspired framework to encourage creativity and closeness when working in a pandemic. They describe their approach as being "careful not to make it a serious game", and instead focus on creating something that "allows working out issues creatively and collectively" (Gobron et al. 2021, 19) In order to tackle the challenges and sense of isolation brought on by a global pandemic, their project aimed to create a new type of online creative collaboration environment – *Spark-IT* – to support their

students' learning. Their project highlights the importance of not just the learning component of education, but its creative components, and how it is reliant on human-to-human interaction.

In his article *Still in Another Castle. Asking New Questions about Games, Teaching and Learning* Tobias Staaby presents results from a long-term research endeavour in which they followed teachers in the process of shaping a game into a teaching tool that would fit their way of teaching their students about ethics and philosophy. The article revisits and summarizes some axiomatic truths about digital game-based learning, before delving into a case study where these truths are put to the test. The article explores the notion of *transformation* and *didactization*; the process of transforming objects (games) into teaching tools. By studying how teachers transform games, Staaby's work shows the ways in which games can be educational *if* they are put in a transformative context, and in which ways they cannot.

Critical Analyses, Game Ethics, and Paradigms of Knowledge Transformation

The final theme of perspectives for this special issue, is one of in-depth analyses of games and teaching as a broader concept, as an object not just situated in a pedagogical context, but also in much larger cultural, epistemological, historical, and societal contexts. Games themselves are products that have been filtered through many layers of invisible influences, and they convey meaning far beyond what is displayed in their immediately visible *content*. Games have a long history that inform today's design conventions, they have a particular place in our systems of economy, consumption, and power, and all of this contribute to a skew in how information and knowledge is transformed when it passes the barriers between the *game* and the *real*.

In the following papers, the authors have explored these broader contexts, and provide an important critical analysis of where games came from, how they relate to different epistemologies, and what they currently contribute to people and society.

Darren Wershler and Bart Simon's article *The Allegorical Build. Minecraft and Allegorical Play in Undergraduate Teaching* begins by discussing historical and contemporary notions of what game-based learning is, and what practitioners and researchers say it can *do*. While *Minecraft* (2009) itself has been a staple in game-based learning discourse, Wershler and Simon change the previous paradigms around the game and its potentials by presenting their own pedagogical approach: the allegorical build. By drawing from extensive experiences of using *Minecraft* for teaching in an undergraduate program, they establish two techniques they use to achieve the allegorical build: infrastructural reflexivity and refamiliarization. The former firmly anchors the game environment in the reflective learning space, by highlighting – rather than hiding – glitches, bugs, and hardware errors. By seeing the object of learning break down, and experiencing failure, the students were both pushed out of the game's bubble of distraction, and the glitches and unexpected failures forced students to rethink their work and it opened up new pathways for collaboration. Wershler and Simon's *refamiliarization* takes inspiration from Johanna Drucker's (2008) refamiliarization technique – the refamiliarization pulls the students out from the *estranged* environment of the game world, to refamiliarize themselves with their *real* environment, and re-evaluate it in a new light: "refamiliarization is about helping students to realize the agency they already have" (Wershler and Simon 2021, 217).

Karen Kat Schrier's article contribution to the issue - *The Ethics of Citizen Science and Knowledge Games. Five Emerging Questions About Games that Support Citizen Science*

- presents a critical examination of a historically celebrated game genre: games that crowdsource science. These games (one of the more famous examples being *Foldit* (2008) have been a staple of discussions regarding the potential of serious games, and the social good they provide. As given away by the title, Schrier aims to challenge these notions by asking five questions regarding these types of games: how is the data they generate used and analysed; how do they affect knowledge production; do they support equitable participation by all citizens; how are players valued; and, what types of ethics are embedded in these games' DNA? What happens when a play is not just a leisure activity and it becomes a contribution to the common good, and your duty as a citizen? What are the implications of science being furthered through the help of highly game-literate citizens? The article challenges our understanding of citizen science games' role in scientific progress, and reveals an often overlooked (or ignored) problem: "the game's design helps to determine what type of knowledge gets produced, how it gets produced, and what we will end up knowing" (Schrier 2021, 160).

Allan Macedo de Novaes and Erick Euzébio Lima's article *Bible Games as Religious Educational Tools in Seventh-Day Adventist Church. A Ludic Inventory* provides the reader with an historical overview of the Bible Study paradigm – a teaching structured around themes connected to verses in the Bible. In the Seventh-Day Adventist Church, analogue games have played a big role in these studies since the 1930s, and in the 1980s the church started experimenting with the use of digital games. By reviewing research and historical documents the article examines how games, and ludic practices, were viewed in different religious and philosophical contexts throughout centuries. However, the article also constructs a *ludic inventory* of Adventist games by analysing periodicals, advertisements from publishers, and church archives. From their work, we are able to get insights into how these

educational games were designed and advertised from the 1930s onwards, and how the Adventist church slowly transitioned to transmedial designs. Through this lens, the article reveals how changes in audience preferences, the rhetoric used to describe the educational value of the games, and the experimentation with new technologies, changed the landscape of games marketed as learning materials.

And, finally, Suzana Jovicic, Barbara Göbl and Dayana Hristova's report *The Secret Chamber of Interdisciplinary Collaboration. Negotiating OutSmart! A Serious Game for Adolescents* shares their experiences of creating a game that presents relevant topics relating to social media. One of their primary goals was to create something that resonated with their students' *actual* lived experiences of social media – and not let the game's design be predetermined by themselves as researchers. The creative team represents an eclectic mix of disciplines, ranging from social and cultural anthropologists, computer scientists, and cognitive scientists, to name a few. Their text is as much about younger students' engagement with co-creating games and game concepts for a serious game, as it is about managing the tensions that can arise when different research disciplines intersect. It provides insights into what games and education looks like from different epistemological perspectives, and how these perspectives can start coalescing during a creative process. It also highlights the inherent problems you are faced with when trying to empower young students in a co-design-democracy. The development of a game, even a relatively simple one, requires domain expertise, game design knowledge, and a certain amount of technological literacy. This can quickly lead to a hierarchical design space, where some students' ideas are promoted over others.

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