



# Project Report **PiA**

Team  
Anna Verena Eireiner  
Carlotta Ferri  
Vadim Goryainov  
Kerstin Pfister  
Leah Schembs  
Laura Schütz  
Florian Tichy  
Katharina Tropschuh  
Jana von Trott zu Solz

Tutor  
Rupert Heindl  
Dominik Irber  
Dr. Matthias Lehner

Mentor  
Dr. Alexander Lang  
Prof. Dr. Sabine Maasen  
Prof. Dr. Stefan Wurster

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## Political communication and learning in the digital age

### How to bring citizens and politics closer together?

In times of digitalization, politics and the dissemination of political knowledge face many new challenges. One of them is that public opinion-forming processes are increasingly taking place in the digital space. This is becoming particularly important for democratic decision-makers. Conversations, newspaper articles and television appearances are no longer sufficient for an informed exchange with citizens. Today, chats or tweets find themselves among the new digital forums. However, there are still few formats that bring politicians and their constituents into a productive and sustained conversation. It is therefore an important task, especially for students of a technical university, to develop such formats at the interface of politics, society, education and new technologies. Two projects of the academic year 2017/2018 have done this, each with a different focus.

The group "Politics and Fun" has set itself a goal of making political education work with young people interactive, while remaining sharply focused on politics. For this purpose, it has developed a

program that allows students in political education to witness the parliamentary week of a deputy, thereby helping them to understand the influence of politics on very specific everyday problems and, at the same time, providing them with an insight into the complexity of political decisions.

However, new information technologies are not just a way for citizens to learn about politics. Conversely, it is also important for politicians to record discussions on the Internet and to pick up articulated opinions and interests there. In this context, "Mucme" offers the possibility to make statements and preferences posted by citizens on the internet accessible and transparent to the political decision-makers. The voting tool developed in this project can provide valuable help in concrete decision-making at the municipal-political level.

As mentors of these two groups, we defined our task as sustaining the motivation of the groups over a period of eighteen months,

during which our continual substantive input not only facilitated elaborate discussions, but also promoted more profiled projects, opened doors, supported the organization of the projects, and offered ongoing academic advice. At the beginning, both teams were struggling with the complexity of the task, the challenging scientific program of the Junge Akademie, and the considerable time constraints. However, the results achieved so far make us confident that, in addition to the benefits for the participating students themselves, not only innovative but also socially relevant products have emerged that are worth further development.

*Sabine Maasen, Stefan Wurster and Alexander Lang*



## “PiA” – Politics in daily life

A group of three students from class 9c of a High School in Nürnberg has met up in front of the escalator in the school building. In their midst, they are holding a tablet. “Pick *a) Everyone should be able to move autonomously!*” one of the students says. But not everyone agrees: “Why not *c) Only, if a person is specifically affected? It’s about accessibility!*” another counters. The students had just scanned a QR-Code printed on a piece of paper, which was hanging on the escalator’s door. As soon as they had placed the tablet over the code, a video about inclusion in the school building and beyond was shown.

The students are out and about with PiA. That is not only the name of the protagonist from a video game with the same name. PiA also means “Politik im Alltag” or “politics in daily life” – in school daily life, more precisely.

PiA is the project of an interdisciplinary team which has emerged from the TUM: Junge Akademie. Since May 2017, the nine scholars have been working on their vision of temporary political didactics. At that time, they wouldn’t have anticipated that they would soon be driving around Bavaria with a classroom set of tablets. The goal of the game is to identify the influence of political decisions at school and thus to stimulate related discussions in class.

The project aims at drawing the young people’s attention to political issues that are present, even if mostly unnoticed, in their everyday lives. By a focus on their own lives, an image of politics that goes beyond the common media-defined horizons should be imparted. Instead of election campaign banter, long speeches or the Twitter account of the US President, it’s all about factual issues.

The Tablet App enables students in groups to embody the role of young politician PiA, who has to orient herself in her first parliamentary week. While the protagonist is making her way from briefings to commissions and interviews, the eighth to tenth graders are learning about selected topics from videos they are shown.

### Factual issues instead of twitter debates

The Christian cross in the class room, questions of inclusion, as well as the menu of the school canteen are some of the issues discussed in the videos. Afterwards the students must choose their own answers to the questions that the journalists in the video ask PiA. The quiz is rounded off by questions that seek for the students’ own opinions about each of the political topics. Instead of identifying the right answer, the young people voice their opinion in a vote – for or against – depending on their own view on the issue. Combining a traditional paperchase with modern digital technology, the topics can be found by the students at stations located at suitable places within the school building. The paperchasers use the tablets to scan the stations and receive information and questions about integration in everyday school life or about the pros and cons of an all-day school.

After the students’ paperchase and PiA’s first parliamentary week, the results of the quizzes are evaluated in the classroom. An overhead projection displays the outcomes for every station. The award ceremony is followed by discussions: At first about the students’ impressions of the game, and afterwards about the questions of opinion raised at different stations. “I knew that how long you have to go to school for and what you get taught there is decided by our politics,” a student explains to her classmates. “However, I wouldn’t

have thought that decisions like ‘Christian crosses in classrooms – yes or no?’ require so much effort and regulations.” In class, this particular question generates disagreement. “For me, it’s part of the Bavarian culture,” one student says, encountering high approval in class. However, a classmate then asks the question: “Why can’t we hang up the symbols of all religions in our class room?”

### Citizens of the future

Besides the three ninth grades of Nürnberg, several other schools got in touch with PiA at the end of the school year 2017/18. As a result, the students of an eighth grade in Kirchheim, as well as two ninth grades of a secondary school in Traunstein, had the chance to compete in the quizzes and to discuss their opinions. For the upcoming school year, several additional schools have expressed their interest.

Indeed, although for most of the students their right to vote will be long in coming, many of them care about politics already, particularly about the upcoming regional elections. They discuss matters with their parents and obtain information from the internet and radio and, sporadically, newspapers. On the other hand, some students don’t bother with politics at all. For them, there are more relevant topics to discuss with their friends and they don’t have a real say yet anyway.

### Maturity via app?

According to one of the mandates of the Ministry of Education, schools are responsible for the formation of mature citizens. Of all things, might a tablet app contribute to such a task? Beyond worksheets and textbooks, there are various other formats aimed at giv-

ing students an understanding of politics. Even playful approaches are no novelty. Simulation games most commonly deal with equitable decision-making, for example regarding certain goods. The players slip into the roles of stakeholders or decision makers.

The increasing possibilities in terms of video games in the past years has enabled a new trend called “Serious Games” to develop. Embedded in a playful story, these programs aim at teaching sciences, languages or mathematics. However, political didactics have rarely been integrated, and not only in the German-speaking regions. PiA is intended to connect gaming fun with the appeal of technical innovation. In the students’ hands, the tablet enables them to explore their schools as political sites. As long as tablet classes are a rarity, the devices need to be passed on to other schools for their next mission. However, a critical eye on politics in young people’s daily lives might also be a trigger for them to ask new questions. Some students had already started thinking beyond what they had learned from PiA before they had even left the building. “I don’t like being told what I should or should not eat. But how about school arranging food information days, so we could learn about healthy food?” one highly-engaged young girl wondered. It appears that ideas continue to be born out of questions – even in the digital age. ■

## Scientific part

### What happened:

Conceptionalization and design of an app-based interactive educational game. The goal was to teach about the role of politics in the everyday lives of students as a form of civic education. The app was tested and evaluated.

### Strengths:

- game mechanics connect analog and digital potentials within the didactics of politics in an outstanding way
- bottom-up instead of top-down education: the concept starts from the student's personal experience instead of abstract subject matter

### Weaknesses:

- the game's complexity is limited as we needed to balance scarcity of resources with a do-it-yourself approach
- more iteration is needed for the elaboration of design, game experience, stand-alone operation, testing, and evaluation

### Opportunities:

- the concept is prototypical for future development in educational games (for social science subjects)
- the game raised interest from relevant publishers for politics education materials

### Threats:

- problems with Wifi in school buildings might spoil parts of the game experience
- tablets are required and this may be a disadvantage for schools in poorer/more rural regions

### Lessons learnt:

- communicating with the help of a prototype is more effective than without such an aid and allows for more precise discussions
- students more eagerly discuss political topics when they are not abstract, but linked to their personal experiences
- although stakeholders agree with the concept, the need for IT software/hardware increases the number of issues to negotiate and find work-arounds for

## 1. Background

### Dingpolitik & The Fun of Discovering Politics in Daily (Student) Life

*“We don’t assemble because we agree, look alike, feel good, are socially compatible, wish to fuse together, but because we are brought by divisive matters of concern into some neutral, isolated place in order to come to some sort of provisional makeshift (dis) agreement. If the Ding designates both those who assemble because they are concerned as well as what causes their concerns and divisions, it should become the center of our attention...”* (Latour, 2010:201)

The renowned French philosopher, anthropologist and sociologist Bruno Latour’s call is “Back to Things!” He asks, “isn’t this a more engaging political slogan?” With our project, we follow this notion. We wanted to show students in high and middle schools, that politics is not something that exists in the far universe of national capitals or exclusively within the realms of the European parliaments. Quite the opposite is true: Politics touches upon all aspects of our lives. With this conception of politics at the back of our minds, we set out to conceptualize a fun, engaging game for students. After all, today’s students are the tomorrow’s voters! Research indicates that different methods and tools support different learning environments, opportunities and cultures. Thus, variety can positively impact the learning process, especially if the tool is fun, motivating students and feeding their interests (Lang, 2002). We found that history and social studies lessons are valuable for building a solid foundation about the macro- and micro aspects of political processes, historical developments and what democratic decision-making means for a society, yet it did not leave over-much room for discovering how politics figure in aspects of everyday life. Instead of looking at seemingly “hard facts,” we wanted to see how artifacts that surround every student assemble and disassemble. The cross on the wall, the elevator that enables disabled individuals to reach their classrooms; these are some of the artifacts that illustrate these complexities. Bruno Latour acknowledges these convolutions and suggests an alternative conception of politics – from “Realpolitik” to “Dingpolitik”

so to speak. It is quite a thrill to discover that seemingly mundane things are not simple truths but complex assemblages that convey meanings, opinions and theories. Consider the cross on each wall of Bavarian classrooms for instance. This has the power to separate and divide as much as it can serve as a unifying symbol for groups. We decided to make a game that allows students to discover these patterns. It was very important to us that the game should be fun and engaging, nurturing a desire to learn more. We wanted to create a game that allows students to discover that they, too, are part of the entanglements, that they should want to reflect upon political questions and to see how and why politics are relevant in their lives. Many people say that young people today, specifically the ominous “generation Y” have no interest in politics whatsoever. Studies show that this is far from the truth and our work with the students on the project reaffirmed these findings (Deutschland, 2015). Students today have a higher interest in politics than the generation before. And how could they be a-political? They are growing up in times of Brexit and a Trump presidency, after all. Our presumption on embarking on the creation of the game was never that there is a “deficit” of student political knowledge or engagement. Instead, we wanted to create a game that reaffirms their curiosity and that can be a fun add-on to the syllabus. Our team took a lot of time and effort to research which didactical methods would best fit our purpose. In Germany, there is an excellent base of political games and simulations that have been developed by political organizations, both state-run and non-profit. The German Federal Agency for Civic Education (Bundeszentrale für Politische Bildung) offers various online and offline formats, for all age groups (Bundeszentrale für Politische Bildung, n.d.). Foundations that are associated with political parties offer other opportunities to learn about politics (e.g. Friedrich Ebert Stiftung, 2018). Most of these games are simulations or workshop-events. We quickly decided that we wanted to create something that could be used in the future as well, as opposed to a one-time event. A digital application seemed to fit the bill quite well: It can be uploaded to the app store and installed on devices, without the need to send out physical materials, and without the need for one of our group members to be present. We also found that an educational app has a novelty factor for most students,

which makes them even more eager to try our game. Combining the digital with a walk around the school building was also a conscious decision: It gives students a break from sitting and listening and lets them see their everyday surroundings in a new light. Our game, PiA (“Politik im Alltag”, *politics in daily life*), combines all the features that we felt were most conducive to facilitating political education: It is eye-opening, engaging, fresh and most of all – *fun!*

## 2. Goals and Methods

Although there is plenty of political games in didactics, our research and reflections suggested that a game set up on digital devices would be beneficial to interest students in politics and increase their competences. Politics is a wide-ranging topic and didactical methods are only capable of addressing a limited amount of aspects at the same time. Including too many aspects in one method can be as counterproductive to learning as singling out one specific aspect without linking it to the different contexts, in which it might appear in our political landscape.

The route between these pitfalls points towards the question, what ‘competence’ in the context of political or civic education is. Richter has diagnosed issues in distinguishing politics-relevant competences from others, such as general literacy, in skill-items of past studies. Her response to these demarcation-issues is focusing on different hermeneutical aspects that link to political or civic competences (Richter 2006).

Instead of analysis of political texts, as in Richter’s case, our research project’s matter of concern were the political dimensions behind objects in the everyday lives of students. Similarly, we focused on hermeneutical aspects of this matter of concern. In consequence, the question that was guiding our research was, whether an interactive digital game would be suitable to interest students in political topics and increase their competences to recognize political dimensions in their everyday lives.

We therefore wanted to design an interactive digital game for students that

a) provokes thought about the political dimensions of everyday environments,

b) provides knowledge to engage with related deliberative processes/controversies, and

c) entertains while it simultaneously informs in the fashion of a so-called serious game.

According to our hypothesis, this game would be able to succeed in these goals, thereby becoming a prototype for future political serious games. PiA would become a combination of a classical scavenger hunt through classroom and school building with a quiz about the politics behind common objects in these spaces. It would be staged on a portable digital device to meet demands for durability past our project phase, for effects of excitement by novelty and relatability for the students.

In the game, the students walk around the school building and search for clues of politically relevant topics in everyday life. They follow the story of Pia, a fictive member of parliament, who has to collect information on various topics before voting in favor or against a policy. The five topics that we included in our game are: all-day schooling, integration, inclusion of disabled students, food laws and the Christian cross in classrooms. Upon finding a clue, the students receive information on that topic and are asked follow-up questions on the information they received. After that, they are asked to give an opinion based on the knowledge recently obtained. In order to include an innovative and fun way of interaction, we have included a digital component: an app that is developed for mobile devices (such as smartphones or tablets).

The clues, which the students have to search for, are QR codes attached to objects that have to do with one of the five topics we have included in the game. The students are given hints on the location of those objects by the app. When they find a QR code, they scan it with the camera of their mobile device and are subsequently redirected to the information concerning the topic they have discovered. This information is presented in an attractive and easily digestible way: the students watch videos that explain the political decisions that are involved in the object they have found. The videos make heavy use of graphics and illustrations and are about one and a half minutes long. Once the students have watched all the videos on a certain topic, they are faced with questions on the matter discussed in the videos. The questions are made in a

style reminiscent of the popular mobile game *Quizduell*: there are always four options to answer the question and only one of them is the correct one. Additionally, there is a time limit on each question in order to prevent the students from seeking the help of external sources to find the correct answer. After the quiz, the students are asked to give an opinion on the topic they have just examined.

The performance of the students in the quizzes and their opinion on the topics become relevant after the game has finished (which should take approximately 45 minutes): we have also built a website for teachers where they can view those results. On this website, teachers can create a *game ID* which is used as a unique – yet anonymous – identifier of their class. The students enter this ID when the game is finished to send their data to our server. The teacher then can access a webpage linked to the game ID in order to view the results. There is a ranking of the students in respect to their performance in the quizzes. The printed names are nicknames which the students have chosen when starting the game – no personal data is ever saved on our servers. Additionally, for every topic, there is a pie chart depicting the overall opinion of the students on the given question. This data is used for an in-class discussion after the game.

The following example illustrates the process of playing one station: The students find a QR code located at a clock. They scan it and receive three videos dealing with the topic of all-day schooling. The videos talk about the pros and cons of all-day schooling and

sum up the current political situation in Bavaria. After watching the videos, they answer four questions on the information discussed in the videos e.g.:

*In which city is the Bavarian Ministry of Education and Culture located?*

- Munich (right answer)
- Fürth
- Augsburg
- Nuremberg

Upon completing the quiz, the students are prompted to answer a question on their opinion:

*Do you reckon that the state should invest more money in the expansion of all-day schooling?*

At the end of the game, two kinds of charts are automatically generated by our web server and these can be reviewed by the teachers.

So far, our game has been played in three Bavarian schools with six classes in total. The students were either in eighth or ninth grade.

### 3. Outcome and Discussion

From the results of the evaluation, it was possible to observe the different perspectives of teachers and students. With the help of the teacher, we evaluated the reactions of the students during the session. All of the teachers who have been interviewed through the

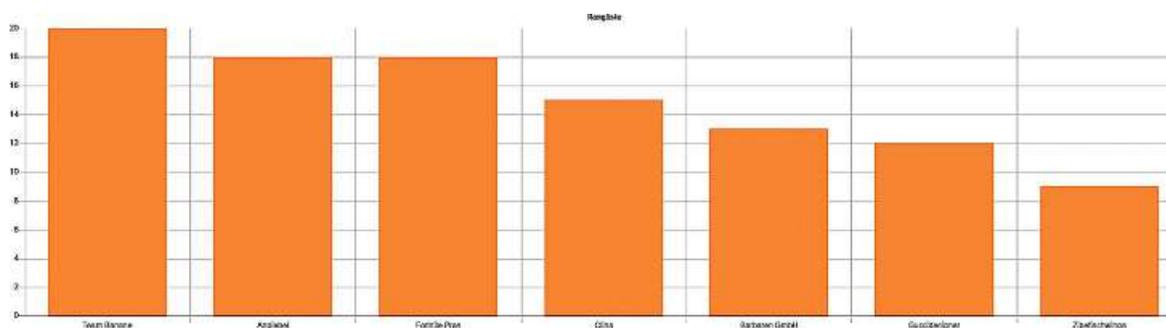


Figure 1: This bar chart shows the score distribution among the students in one of our games. Each of the bars represents a team of students and shows the number of correctly answered questions out of a total of 25. The nicknames have been chosen by the students themselves.

Findet ihr, dass Bayern vermehrt in den Ausbau von Ganztagschulen investieren sollte?

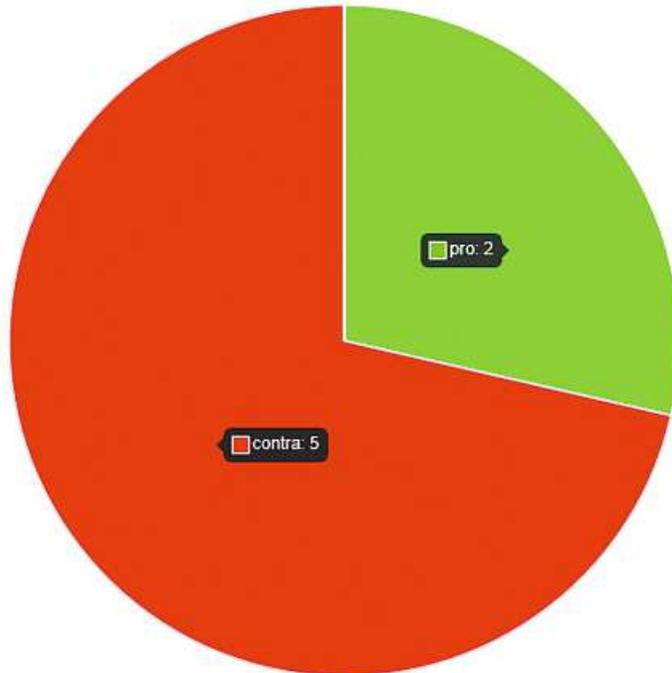


Figure 2: This pie chart shows the answers of the students in one class to the question above. The green part shows the advocates of the idea, the red part shows the opponents.

Evasys questionnaires agreed that during the project the students' motivation increased considerably. In their opinion, the project PiA had a positive impact on students and generally inspired them to take a greater interest in political topics. They all anticipated that, thanks to this activity, students will be more actively interested in political topics in their everyday life. As confirmed by the teachers, PiA would not interfere with the normal course of instruction. Considering all these aspects, the teachers would be very interested in applying PiA during their lessons.

The students' opinions have been evaluated by two separate surveys: one before the activity with PiA and another one afterward. The majority of the students participating in the study were male (68,5%) and studying in the 9th grade (70%).

The study before the activity recorded a rather low interest in politics, as shown in figure 1. A reason for this apparent lack of interest might be that the students did not recognize the involvement of politics in daily life, as we observed in the study results represented in figure 2 and figure 3. This result does not match with broader studies about political interest in the current generation that we have investigated during our project (i.e. Shell Study). The reason for this discrepancy might be the different scales of the studies. While large-scale studies offer a considerably higher amount of better-refined elements, the PiA project was structured in a simpler manner and was also constrained by time and by the size of the sample reached (106 students).

From the evaluation form that the students received after playing PiA, the students' impressions regarding the PiA project have been evaluated. In general, the majority (81%) considered the activity entertaining. The figure of the Assembly woman, Pia, was interesting for 44%, while almost 41% gave an average evaluation of it. Nevertheless, almost 91% of the students expressed a willingness to play something like PiA again, since the majority found it easier to concentrate on the topics than during a conventional lesson, confirming the teachers' impression. What also becomes clear from the evaluation process is that the students particularly enjoyed the interaction with each other and the fact that the activity had to be conducted in teams. After the project, there was only a slight increase of students more interested in political topics than they were before, as shown in figure 4. However, from the results depicted in figure 5 and figure 6, students seem to have changed their opinions regarding the impact that political decisions can have on their daily life at school. Additionally, students felt that the commitment of politicians to students' interests is not high enough.

Looking at the technical aspects, the students evaluated the App as not too fast, the graphics as amusing and the quizzes as not too easy nor too difficult. However, the students considered the amount of text excessive.

From the study's results, it was unfortunately not possible to give a definitive evaluation of the competences of students regarding politics. In fact, this was not the aim of the project, since further scientific research in the sector of civic education has to be conducted in order to go deeper into this topic. However, it appears very clearly from this specific project evaluation, that a playful or play-related way of learning consistently increases

the concentration and motivation of students. This might be reflected not only in greater competence and knowledge but also, as observed in the evaluation results, in the general enhancement of political interest among the participants. Additionally, students have recognized the influence of politics in their daily lives, which could raise their future participation and active interest in political topics.

**Politik interessiert mich.**



Figure 3: Question from the study before the activity: "I am interested in Politics." Answer: Yes, a lot – Absolutely not.

**Politische Entscheidungen haben Einfluss auf meinen Schulalltag.**

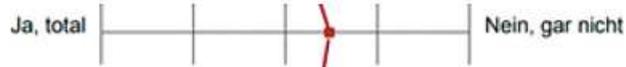


Figure 4: Question from the study before the activity: "Political decisions have an impact on my daily life." Answer: Yes, absolutely – Absolutely not.

**Politik hat mit meinem Leben nichts zu tun.**



Figure 5: Question from the study before the activity: "Politics does not have anything to do with my life." Answer: On the contrary, it has a great deal to do with it – Nothing at all.

**Politik interessiert mich.**



Figure 6: Question from the study after the activity: "I am interested in Politics." Answer: Yes, greatly – Absolutely not.

**Politische Entscheidungen haben Einfluss auf meinen Schulalltag.**



Figure 7: Question from the study after the activity: "Political decisions have an impact on my daily life." Answer: Yes, definitely – Absolutely not.

**Politik hat mit meinem Leben nichts zu tun.**



Figure 8: Question from the study after the activity: "Politics does not have anything to do with my life." Answer: On the contrary, it has a very strong one – Nothing at all.

**Politiker nehmen keine große Rücksicht auf die Interessen von Schülern.**

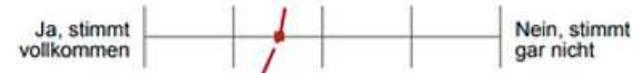


Figure 9: Question from the study after the activity: "Politicians do not greatly concern themselves with students' interests." Answer: Yes, I completely agree – No, I do not agree at all.

#### 4. Summary and Future Goals

Contrary to common misconceptions of generation “Y,” today’s students have a higher degree of interest in politics than previous generations (Deutschland, 2015). We aimed to reinforce this political interest in high school students, contributing to the political education of tomorrow’s voters. The significance of politics in aspects of everyday life is under-represented in current political education. Therefore, our goal was to provide an educational tool that would allow students to discover the complexity of political opinions and decisions embedded in everyday artifacts around them. By acknowledging this complexity within the school surroundings, students are encouraged to realize the relevance of politics in their own daily lives.

We created a mobile app that invites students to explore the politics behind their school surroundings in an active and engaging way based on a scavenger hunt in the school building. The narrative of the game lets students slip into the role of PiA, a member of parliament, and allows them to follow her daily schedule. In the app, students team up in small groups and watch videos to acquire knowledge and answer quizzes. Further, forming and giving one’s opinion is required for each topic. Both the quiz-results and the distribution of opinions within the class can be visualized using a website. Crucially, this provides a basis for in-depth discussions in class once the game is finished.

We piloted our app in three Bavarian schools with 106 students from six 8th and 9th grade classes. Confirming the observations of the team members present at the schools, the great majority of students found PiA entertaining and would be interested in playing the game again. This is related to increased levels of concentration during engagement with the interactive and digital educational tool as compared to conventional lecture-style teaching. Moreover, the fun of working in teams seems to contribute to this effect. The teachers were generally convinced that the project inspired political interest in the students. They did not perceive the project as a disruption to the curriculum, and generally expressed interest in applying PiA in future lessons. When comparing students’ pre- and post-project evaluations, we found no increases in political

interest, or in the desire to discuss politics more often with family and peers as a consequence of our app. Yet, importantly, students acknowledged the influence of politics on their daily lives more strongly after the lesson with PiA than before it. This confirms our hypothesis and indicates the effect of our app on increased understanding of the importance of politics in the everyday surroundings of students. Unfortunately, an increase in political competence could not be measured and needs to be addressed by further research, for instance by developing adequate tools to measure short-term increase in political competence.

The main impact of PiA was the students’ increased appreciation of the influence of politics on their daily lives. Both students and teachers were convinced of the app as an engaging and fun addition to classic politics lessons. The app and supporting material allow teachers to employ it without the assistance or presence of a team member. Therefore, PiA is now independent of its developers and might be able to support many more students in recognizing the importance and the impact of politics in their daily lives. Eventually, we hope that PiA supports teachers in their endeavor to educate politically interested and committed voters.

All in all, our project shows that an interactive and engaging educational app can increase awareness of the importance of politics in students’ daily lives.

Now as we are completing our active project phase, it is essential for us to advance our project in order not to leave it as a “one hit wonder” but – in its best achievable state – to pass it on for continued use and even further future development.

Our ideas for realistically attainable exit strategies were very broad and led to numerous lively discussions during our team meetings. Options ranged from founding a start-up, selling the application, giving the project over to a non-profit organization, an association or a political foundation etc., to transferring the project to a publishing house. As our primary interest was not to rise from rags to riches and to commercialize our project, nor to get involved with a specific political party or organization (and thus endorse a particu-

lar set of viewpoints), we decided on the option of getting in touch with publishers. After several meetings and lots of exchanges regarding form and content, we made a successful agreement with the leading publishing house in the field of politics and political didactics in the whole of Germany. Satisfied with this future development, we can now support our new partners with tips and ideas regarding further improvements and supplementary features. With great interest and pride, we are very much looking forward to

observing how our project continues to “live on” and to doing our best to provide continuing assistance.

Furthermore we are glad to announce that many of the schools we visited during our project trial phase were so convinced by PIA that they have decided to rerun the digital political scavenger hunt with even more classes and thus higher numbers of pupils. The best feedback we could possibly have wished for! ■

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## Self-reflection PiA

“Why do you think that high school students in particular should be given a better understanding of politics?” – “High school students are tomorrows’ s electors and will influence and form our democracy of tomorrow. Therefore we cannot accept disenchantment with politics to spread and young people to be influenced by populists and their allegedly easy answers.”

This statement from one of our members sums up well our initiating motivation to illuminate political education in German high schools. However, during the first weeks and especially in autumn 2017, we had some difficulties in concretizing our visions and transform it into a feasible project: “We discussed a lot but accomplished little.”- This tested our motivation and we had some weeks with little progress. Our mentors and tutors helped us during these times of drought with practical recommendations (e.g., doing a timeline) and provocative questions like “What is your hypothesis?” and “How could this be realized?” However, when we overcame these early difficulties, our motivation and commitment to our developing project returned. “When we gained a common vision and our ideas took better shape, the atmosphere as well as the motivation improved drastically.”

Another obstacle that had to be overcome concerned the management and coordination of our ten member group. Among those ten members, two were not located in Munich for nearly the whole project phase. “I welcomed it greatly when we decided to nominate a ‘liaison officer’ with special responsibility for communicating with the ‘foreigners’. This improved collaboration beyond Germany’s borders.” This member took responsibility for allocating current tasks and overseeing their fulfilment, as well as for communicating progress and issues at hand.

“Politics are very important and to engage in it is fun! Unfortunately, in the curriculum there is not much opportunity to teach more than fact-based knowledge. We wanted to improve this.” This state-



ment sums up perfectly why we opted for “Politics and Fun” as our preliminary team name. We always aimed to promote something innovative and different from pre-existing classroom methods. Our mentors encouraged us to pursue this idea, giving us advice on how to realize it and raising awareness of how we can indeed make it pleasurable to play. “Bread and circuses – a concept that has been used for a long time. Young people can be addressed and wowed a lot better through playful methods. When something is fun, one likes to engage in it and tell others about it. To make it fun was, for sure, very important for us!”

But it was not only fun that was of high value for us, we also aimed to convey a message. We decided to thematize “politics in everyday life”, as we, too, were interested in areas where we are in contact with politics without realizing it. “We interact with many juridically detailed regulations every day without noticing it. Especially the complexity of the interaction of communal, cantonal and federal institutions surprised me.” For the stations of our treasure hunt, we chose controversial topics that could be related to objects found in every classroom or high school building. As the



evaluation showed, students and teachers welcomed these new perspectives. It also illustrated that our initial hypothesis about students lacking political interest and motivation was not correct. Instead they demonstrated substantial knowledge and interest in discussing current topics. As one of our team members said: “I was astonished by how much the students know about politics and how thoughtfully they can advance their views. It is not true that students are not interested in politics. On the contrary, in these times of Trump and Brexit, rather the opposite is true. This intrinsic motivation makes it easier for us to make everyday politics also seem accessible.”

However, our goal was not only to create a pleasurable way to convey knowledge, but also to extend and diversify currently predominant classroom methods. We decided to do so by creating an App and, in this, we were greatly encouraged by our mentors and tutors, respectively. Although we were faced with a variety of difficulties to overcome – such as the commissioning of a server and the immense workload of programming for which only one of our team members was qualified – we eventually finalized a functioning



and attractive App. We believe that by choosing a technologically up to date pedagogical approach, we ensured its appeal and sustainability. And, as the evaluation showed, students agreed and appreciated the opportunity to work on a tablet. As one PIA-Member phrased it: “It was my dream to create something sustainable. And I think we managed to do so!”

Of course we could not have realized our project without the great help of our three mentors, Prof. Dr. Sabine Maasen, Prof. Dr. Stefan Wurster and Dr. Alexander Lang. Their valuable advice was always welcomed and their in-depth knowledge and variety of contacts were a big asset to us. Thank you very much! We would also like to acknowledge the guidance provided by our tutors, Dominik Irber, Rupert Heindl and Matthias Lehner. Their practical advice on every step of our project navigated and helped us throughout. Thank you! Furthermore, we would also like to thank our partners, in particular PIXIDA, for help with the setup of the server, but also the regional high schools that gave us the opportunity to field-test our App. Thank you!





## PiA

### Politik im Alltag - Process and team structure

#### 1. Project

Many people say that young people today, specifically the ominous "generation Y" has no interest in politics whatsoever. Studies show that this is far from the truth and our work with the students on the project reaffirmed these findings. Students today have a higher interest in politics than the generation before. And how could they be a-political? They are growing up in times of Brexit and a Trump presidency, after all.

Our presumption going into the creation of the game was never that there is a "deficit" of student political knowledge or engagement. Instead, we wanted to create a game that reaffirms their curiosity and that can be a fun-add-on to the syllabus. Our team took a lot of time and effort to research which didactical methods would best fit our purpose. In Germany, there is an excellent base of political games and simulations that political organizations, both state-run and non-profit, provide. Most of these games are simulations or workshop-events. We quickly decided that we wanted to create something that could be used in the future as well, as opposed to a one-time event.

A digital application seemed to fit the bill quite well. It can be uploaded to the app store and installed on devices, without the need to send out physical materials, and without the need for one of our group members to be present. We also found that an educational app has a novelty factor for most students, which makes them even more excited to try our game. Combining the digital with a walk around the school/house was also a conscious decision: It gives students a break from sitting and listening and lets them see their everyday surroundings in a new light. Our game, PiA, combines all the features that we saw fitting to convey political education: It is eye-opening, engaging, fresh and most of all – fun!

#### 2. Process

##### Testing phase

Having finished our first prototype of the application in June 2018, we began the in-field testing phase. Meaning that in order to gather relevant insights according to our research question, we tested the app in classrooms in Bavaria. We have so far been able to conduct our research in 6 classes, both 6th and 8th grade. The quiz-app was tested in one middle school and two high schools. The age of the pupils varied between 14 and 16 years. Depending on the availability of tablets, the group size, in which the game was played ranged from one to six students per tablet. A rough assumption of ours is: the smaller the group size is, the more likely it is to achieve high scores in the game.

Along with the actual execution of the game, we had the students as well as the class teachers fill out surveys. These surveys were developed while carefully considering the research topic at hand. The incorporated questions gather information on various topics, from the overall procedure of the game to the formal appearance or the given interest in politics.

#### Evaluation

The collected data is currently under evaluation. Part of the evaluation is the merge of the different sets of data and analysing these under certain aspects. In the first stage of the evaluation a feasible number of graphics will be created in order to visualize the collected insights. As part of the evaluation we will make an attempt at describing the demographic group that has taken part in our experiment.

Furthermore we aim at discussing the results at the Symposium in October. We will prepare open questions which derive from the qualitative and quantitative analysis, highlight results and reduce them into key questions that enable comparison and hopefully answer our research question. The discussion will critically examine the relationship between the method and the outcome and take into account further qualitative data from participant observations and interviews by team-members.

#### 3. Next steps

In the following weeks we will examine if a direct relationship between the discussed outcome and the goals is given. Apart from the collected data we will try to evaluate the applied methods and their suitability. We will try to visit even more schools and increase the amount of collected data and qualitative insights in order to formulate outcomes which are even more profound.

Other future tasks are to address the potential of the ongoing use of the application after the determination of the project and the negotiation with interested publishers or institutes.



SEPTEMBER 2018

**MEMBERS** Verena Einsner, Carlotta Ferri, Vadim Goryainov, Karstin Pfister, Leah Schembs, Laura Schütz, Florian Trichy, Katharina Tropechuh, Jana von Troit zu Solz  
**TUTORS** Dominik Irber, Rupert Heindl, Matthias Lehner  
**MENTORS** Dr. Alexander Lang, Prof. Dr. Sabine Maasen, Prof. Dr. Stefan Wurster

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POSTER 3: An app's interface does not tell you about the background struggles, compromises, workarounds and decision-making in a non-ideal world. All these challenges disappear behind smooth design, intuitive control, and transitions faster than eyes can track. Accordingly, this poster reports our project's progress as if surrounding conflicts had never occurred.

When we made the controversial decision to focus on a digital application, we did so on the basis of an estimation of our resources. Unfortunately, it turned out that we were misinformed about the financial part of them. Barely had we nursed our bumps from the fights over digital vs. analogue, when this blow put us into crisis mode. We tried to reconfigure our timeline and redistribute tasks, but it was an evening walk together in the foggy Isar valley at the interim evaluation weekend at the end of January 2018 which restored our belief that we could nevertheless realize our project. ■

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# PiA – Politik im Alltag

**Background & Aim**

Contrary to common misconceptions of the generation 'Y', today's students have higher interest in politics than previous generations (Deutschland, 2015). We aimed to reinforce this political interest in high school students, contributing to the political education of tomorrow's voters. The significance of politics in aspects of everyday-life is underrepresented in current political education. Our goal therefore was to provide an educational tool that would allow students to discover the complexity of political opinions and decisions embedded in every-day artefacts around them. By acknowledging this complexity within the school surrounding, students are encouraged to realise the relevance of politics in their own daily lives.

**Methods & Implementation**

We created a mobile app that invites students to explore the politics behind their school surrounding in an active and engaging way based on a scavenger hunt in the school building. The narrative of the game lets students step into the role of Pia, a member of parliament, and allows them to follow her daily schedule. In the app, students team up in small groups and watch videos to acquire knowledge and answer quizzes. Further, forming and giving one's opinion is required for each topic. Both the quiz-results and the distribution of opinions within the class can be visualised using a website, which provides a basis for in-depth discussions in class once the game is finished. We piloted our app in three Bavarian schools with 106 students from six 8th and 9th-grade classes (ages 13-17).

**Results**

Confirming observations of the team members present at the schools, the great majority of students found PiA entertaining and would be interested in playing the game again. This is related to the increased ease of concentration during the interactive and digital app compared to conventional lecture-style teaching. Moreover, the fun of working in teams contributes to this impression. The teachers were generally convinced that the project inspired political interest in the students. They did not perceive the project as a disruption to the curriculum, and generally expressed interest in applying PiA in future lessons.

**Impact**

The main impact of PiA was the student's increased appreciation of the influence of politics on their daily life. Both students and teachers were convinced of the app's engaging and fun character. The app and supporting material allow teachers to employ it without the assistance or presence of a team member. Therefore, PiA is now independent of its developers and might be able to support many more students in recognizing the importance and the impact of politics in their daily lives. Eventually, we hope that PiA supports teachers in their endeavour to educate politically interested and committed voters.

**Future**

We are glad that many of the schools we visited plan to implement our scavenger hunt in more classes. Moreover, we could establish a collaboration with the leading publishing house in the field of politics and political didactics in Germany and look forward to supporting our new partners with tips and ideas for further developing the project.



OCTOBER 2018

<b>MEMBERS</b>	Verena Eisenner, Carlotta Feni, Vadim Goryainov, Kerstin Pfister, Leah Schomb, Laura Schütz, Florian Trichy, Katharina Topfstedt, Jana von Troitz zu Seitz
<b>TUTORS</b>	Dominik Iker, Rupert Heindel, Matthias Lehner
<b>MENTORS</b>	Dr. Alexander Lang, Prof. Dr. Sabine Maasen, Prof. Dr. Stefan Würster



POSTER 4: Finally, we achieved the goals we had set. We were incredibly happy to see our app in completion. Unfortunately, there still was an issue to address, and that was the export to the iOS platform. We had previously tested the app on Android devices and had fixed the biggest bugs. But the devices that the TUM School of Education lent to us ran with iOS. The development policies of Apple made it much more difficult to build our app for iOS devices. In the end, we used up most of the two days before our first test run with trying to deploy the app to the devices.

But the effort we put in was not in vain: we were eventually able to make it work and to test the app in three schools. We were happy to see that the children were intrigued by the unusual format of lecture that they had the chance to experience. Also, we received positive feedback from the teachers. We were glad of all the experiences that we encountered during the project. Although we had our ups and downs, it all paid off in the end. Not only did we make a great project come to life, but we also – and more importantly – made new friends.