

THE MAGNET CARTA PROJECT: PARTICIPATORY DESIGN WITHIN AN EDUCATIONAL INNOVATION

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ABSTRACT

This paper presents a case study in the use of participatory design to address a specific problem related to U.S. public education: confusion about space, place, and identity in middle-school magnet programs housed on school campuses with high percentages of non-magnet students. As a parent participant in the school's community, I sought to address this problem by moving participatory design from work spaces to public education spaces, in the service of articulating and activating student values, voices, and identities within the magnet program. This ultimately led to The Magnet Carta Project, a design project that applied design thinking to an existing educational innovation, and that utilizes collaboration at many levels (Ehn, 2008).

As an example of an open participation process (E. Manzini and F. Rizzo, 2011) with the re-imagining of the situation nuanced by the use of spatial and network theory, this paper presents a design process that exemplifies the complexity of social innovation, including the shifting roles for a designer and the evolving aims of the design participation itself.

INTRODUCTION

Imagining and enacting new futures is at the core of Design. Because people strongly associate Design and Design thinking with creativity and innovation, it has been of interest in other disciplines such as Business and Education. David Kelley, a mechanical engineer and product designer, founder of IDEO in 1991, led the 2004 creation of the Hasso Plattner Institute of Design at Stanford (also known as the “d.school”). His brother, Tom Kelley, then general manager of IDEO, wrote the business best-seller *The Art of Innovation: Lessons in Creativity from IDEO, America's Leading Design Firm* (2001). In 2005, best-selling business author Daniel Pink declared that the “MFA is the New MBA.” These crossover connections have sparked interest in applying design thinking in a variety of other locations, including my area of interest: public schools—both in curriculum and project development.

Design thinking has a general process that involves identifying a problem; finding a solution; testing the solution; and learning from the results. Each of these steps may involve more detailed processes, which themselves can be iterated a number of times. The process utilized here comes from IDEO's Design Thinking for Educators: Discovery, Interpretation, Ideation, Experimentation, and Evolution. It also means working toward a new solution based on shared values among the stakeholders; who has a say can be a key question.

PARTICIPATORY DESIGN

Participatory Design, originating in 1970s Scandinavia, was developed as an approach to improving systems and work spaces, particularly in the context of workers' rights (Ehn and Kyng, 1987). Computer Professionals for Social Responsibility (CPSR), a global organization that promotes Participatory Design (PD), defines it as an approach “that places a premium on the active involvement of workplace practitioners (usually potential or current users of the system) in design and decision-making processes” (CPSR, 2005).

In the US, the concept of “participatory design” has helped to shift our field's emphasis. Rather than focusing on an end product and future outcome—how

will users behave and engage with an object?—the model articulates the users' requirements up front and throughout the product development cycle. Methods for determining user needs include ethnographic study, interviews, and testing of prototypes.

Participatory design has evolved further toward a model of co-design and co-creation, in which designer/experts take on a facilitator role throughout the design process (Sanders, 2008). Yanki Lee proposed an inversion of the term from PD to DP (Design Participation), with a focus on how and when a designer enters the process of creation (Lee, 2008). The question of who is included and how—relevant both for commercial innovation spaces (business) and public spaces (community planning and education) comes to the foreground.

That question has been usefully addressed by Actor Network Theory (ANT), in which all elements—human and non-human—are regarded as actants. Pelle Ehn describes the “design project” as a “socio-material thing that is the major form of alignment of design activities,” an alignment that include people and technology (2008). These steps toward expanding design practice have resulted in what has been called an open participation process: from the outset, the goals and values of designer, user, and object are articulated and aligned throughout the design process in an assemblage (Manzini and Rizzo, 2011).

The Magnet Carta project began by moving participatory design from work spaces to public education spaces, in the service of articulating and activating student values, voices, and identities within the magnet program. Eventually, student, administrator, and parent communities joined in a participatory process. The outcome was The Magnet Carta document and workshop, a design project that applies design thinking to an existing social and educational innovation, utilizes collaboration at many levels, and generates a re-created social and educational space.

BACKGROUND: U.S. EDUCATION AND MAGNET PROGRAMS

Schooling is compulsory in the United States, extending from ages six through eighteen in Texas, and divided into three levels: Elementary school (kindergarten–5th grade), Middle or Junior High school (6th–8th grade), and High School (9th–12th grade). Students typically attend middle school, the setting for my design project, from ages 11-14. Developmentally, this is a critical time: children undergo biological and psychological changes, and issues of social and personal identity are central. Transitioning to middle school also requires a restructuring of the educational experience, from a single teacher in a single classroom to learning from several teachers in different classrooms; no free time or recess; increased workload and extracurricular activities; and the logistics of following a course schedule (Neisen, 2000).

During these years, problems associated with the public school system become more pronounced: overcrowded classrooms, rigid curricula, constant testing, and disaffected students. So too do problems stemming from decades of racial and economic segregation in the US, a legacy seen in the wide disparities in educational quality related to the location of schools.

The concept of a magnet school, starting in the 1970s, is based on two beliefs. First, all students do not learn in the same way. If schools were structured differently or organized around themes—such as Math and Science, or the Fine Arts—students could select the school that best suits their interests and needs, and become more engaged with their education. Second, if magnet programs were housed in underprivileged schools within low-income neighbourhoods, the specialized instruction and curricular focus would attract students throughout all districts, including those from wealthy, typically white neighbourhoods. Considered an educational and social innovation, magnets would operate as a form of voluntary integration. In practice, however, magnet schools have increasingly shifted toward highly selective, application-based programs that attract “gifted” students who score well on tests and receive good grades. Students with poor grades or spotty records encounter a firewall (Chen, 2014). Additionally, some schools, typically middle-class and affluent ones, that “feed into” the magnet programs are aware of how to best present applications and assist their students (Taboada, 2015).

In the mid-1980s, Austin Independent School District (AISD) established two magnet programs, one for high-school students and one for middle-school students. Both followed a school-within-a-school model. The magnet program students reside on the same campus as the comprehensive program students, but they meet in different areas of the building and generally do not crossover in academic offerings and facilities. This model has been criticized for reiterating an unequal us-versus-them education divided along familiar lines of race and class, and for failing to reflect the district's ethnic balance of the school-age population (Taboada).

The subject of this case study, AISD's middle school Magnet Program for Humanities, Arts and Law, was established in 2001 and represents Austin's attempt at an inclusive yet still rigorous education. The admissions process is competitive, with students selected on the basis of application forms, multiple teacher recommendations, transcripts, test scores, and essays. However, once admitted, this magnet program follows an integrated program model. Apart from a small number of core courses in English Language Arts and Social Studies, all magnet courses—including math, science, and electives—are “integrated” with the general, or comprehensive, middle school population. By philosophy of the campus administration, all faculty on the campus teach both magnet and comprehensive students in their classrooms.

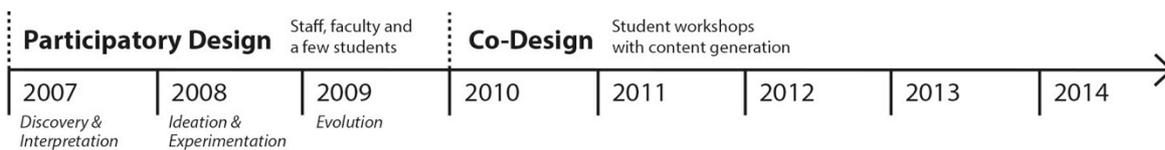


Figure 1: Timeline overview of Magent Carta Project design process

THE PROBLEM

I was introduced to the middle school magnet described above as a parent. The catalyst for this design project came when my son, within a month of beginning sixth grade at the program, announced with frustration that, “Everyone can get into this magnet program and anyone can stay in.” After going through the demanding admissions process, he found himself in classes that (to his mind) were no different from his previous experiences in AISD. Several weeks later, asked if he had practiced his instrument, my son replied that he had already practiced guitar—during English class. With that, he began to describe his unfocused experiences of the class and of the magnet program in general. I met with his English teacher to discuss the situation and learned that the faculty experienced stress regarding classroom management and the disparate levels of student academic engagement.

The problem seemed to be a mismatch between the magnet’s promise of a socio-educational innovation—integrated students, academic rigor—and faculty, parent, and student experiences. Neither the magnet nor the comprehensive students were being well served. There were larger implications. If this model of an integrated magnet model proved inadequate, would the school-within-the-school magnet model prevail despite its track record of underserving the population it was originally designed to help? My starting point was modest: Could the integrated magnet program at this middle school be preserved and improved?

Reframed, the challenge would be to instill among its students a shared sense of identity, value, and commitment to the academic program. What follows is a presentation of design completed over eight years, which evolved into an open participatory process shared by several communities. I have organized the study according to the categories of Discovery, Interpretation, Ideation, Experimentation, and Evolution. At each stage, the project benefitted from increasing the community engagement in participatory design (Fig. 1). The first three stages produced the design solution: a physical object, the Magnet Carta, to serve as a contract for magnet student commitment. Experimentation included generating a prototype, student signing, and feedback. To date, Evolution has occurred in two phases: the first led to opportunities for student dialogue about the document before signing. The second opened the project to include student document co-creation in a workshop setting.

DESIGN PROCESS

Understanding the challenge required insight into why the integrated magnet model was falling short in its promise. After viewing and studying the program, students, and campus, I came to see the problem in terms of Lefebvre’s concept of space as a living, produced thing. Space is understood as triadic: Perceived Space (spatial practice), Conceived Space (representations of space), and Lived Space (representational space) (Lefebvre, 1991.) All three are intertwined, however the theory enables an analysis of each component. How well did the magnet program produce and enact itself across each of these spaces?

DESIGN STEP 1: DISCOVERY

Perceived Space (spatial practice/physical) For Lefebvre, “perceived” space relates our movements and practices within the physical arena of an organization. When a magnet program was added to the middle school in 2001, there was no alteration in how the physical space was constructed, defined, or inhabited. That was still the case when I began my project. The campus contained no perceived spaces specific to the magnet program, defined by practices such as study groups or social gatherings. Even the Director’s office was hard to locate, resulting in isolated efforts rather than a shared practice of access. Although a small number of core courses were reserved for magnet students, there were no designated physical entities such as magnet academic classrooms or magnet teachers. All classrooms served magnet and comprehensive program students; all teachers taught all students. The physical space and its practices barely registered the presence of the magnet program.

Conceived space (mental representations of space) A public school’s represented space is conceptualized “top down” by the language, politics, and ideology of city planners and school administrators. In general, the concept of magnets implies an intensive learning environment, defined by a thematic focus and increased academic rigor and achievement. AISD’s specific “conceived space” of an integrated middle school magnet program included balancing differentiated education with the notions of quality and equality, thus providing a unique space for improved educational outcomes.

However, these representations obfuscate the reality of what is possible. The application process remains highly competitive, demographic differences are overlooked, and rejection rates high. Those students who are admitted arrive with the belief that they have achieved something of value and that their efforts will be

matched with a challenging program. The fact that those expectations are not met is hardly surprising. A school that integrates its magnet and comprehensive programs walks a politically sensitive line of trying to serve both communities while not making one appear to be superior to the other. Even more challenging, 80% of this school's population is designated Title I, the U.S. Department of Education's term for a disadvantaged population, whose academic achievement must be improved.

Lived Space (representational space/social) The magnet students' experience within the lived, social space of the program and campus lacked a representational dimension. No objects, symbols, or practices marked their existence as a cohort – a welcome banner, a weekly meeting, a shared social activity. Ordinary student challenges—insecurity, cliques, peer pressure—in both the magnet and comprehensive student populations carried the added pressures characteristic of an underprivileged school district—ethnic-racial tensions; a culture of academic underachievement; and gang activity. Communications across social spaces can facilitate information and dialogue, and thereby create a “lived space” for overlapping communities. But despite the ideal of an integrated program, such spaces did not exist.

I concluded that the magnet program was amorphous if not invisible within the perceived space of the campus; students' experiences did not align with the program's conceived space of self-representation; and the program lacked representational markers to define a magnet-specific lived space.

DESIGN STEP 2: INTERPRETATION

The problem was a gap between the magnet program's promised spaces—how its socio-educational innovation would be perceived, conceived, and lived—and the actual experiences of students, teachers, and parents associated with the program. As a concerned parent, I was ready to listen and contribute as appropriate. As an educator and designer vested in the belief that design methods apply to social issues, I was curious about how we might move forward toward these imagined and promised futures.

I needed to spend time with the constituents to research the situation from their points of view, as well as spending time in the classrooms and on campus. Part of my learning came from listening and talking to my son and his sixth-grade classmates. I also joined a parent-initiated listserv for the Magnet program. After participating for a period of time, I was invited by two more experienced parents, one with a 7th grade student, the other with an 8th grader—to become involved in the Magnet Advisory Council (MAC), which had been formed to work with the Magnet program director. The MAC members included the current program director (Director A), three teachers who taught Language Arts or Social Studies magnet courses, and parent representatives from each grade: 6, 7, 8. The group met

on a monthly basis; joining mid-school year, I spent most of my time at meetings listening, trying to discern the perspectives expressed by various participants.

The membership as a whole agreed that the magnet program had problems. Parents believed there were problems with the quality of the teaching, the structure and clarity of the curriculum, and the abilities of the director. The teachers felt there was a problem with recruitment (the director's responsibility) and a general lack of involved parents. The director thought there were problems with the teachers, parents, and the politics of the district. And everyone agreed on problems with the student discipline—getting kids to “behave,” to remember that they were there to learn, to turn in homework. The question was how to hold magnet students to high-achieving academic standards in an environment integrated with some percentage of comprehensive program students whose motivations may differ.

My contribution to the conversation was informed by my son's experience, a magnet student in good standing who nonetheless had expressed disillusionment and apathy after his first month. I provided a new parent's description of the disjunction between a student's effort to get into the program, and what admission signified in terms of distinction and reward, and an experience of “more of the same.” My representation gave voice to a student's disappointment and led the discussion back to the students—and the assumption that they wanted to do well in the program. At this juncture, the conversation and focus shifted from perceived matters of facts and problems toward the shared values and aspirations for the program. From this point, all members in the Magnet Advisory Council joined in discussing ways to re-affirm the new students' efforts and commitment to becoming magnet students.

DESIGN STEP 3: IDEATION

Upon accepting enrolment in the program a magnet student and parent/guardian must sign an 8.5 x 11 sheet of paper that affirms understanding of the academic requirements needed to remain in the program. The language reiterates AISD policies regarding school transfers, including into a magnet program, stating, “A parent and student who accepts a transfer shall agree to abide by the receiving school's standards for academic progress, attendance, discipline, and parental cooperation. The principal of the receiving school shall be authorized to deny or revoke the transfer if these conditions are not met” (Austin ISD, 2013).

Unremarkable in appearance and one of many pieces of paper that a newly accepted student and her family may receive, this document had the potential to become something more. In its current form, it is an obligatory point of passage (OPP), one completely dictated by the district and campus administration (*conceived space*). When discussed in the light of students' hopes and desires for being in the program, MAC members became animated, and many analogous thresholds were

raised. One teacher recalled the commissioning ceremonies at West Point and the physical nature of stepping forward to accept the new responsibility. Another teacher recalled the Magna Carta, the 1215 English charter that ended absolute monarchy by requiring that everyone be accountable by the rule of law. A play on that name, The Magnet Carta, was adopted for our future document. Thus, the MAC organically co-created the idea of making that document more visible, as well as the idea that students would publically sign the document (*lived space* defined by objects, symbols, or practices).

Together with the other 6th-grade parent representative, I prepared a draft of the language for MAC approval. While the language for responsibilities was easily based upon fairly standard behaviour and homework expectations, to develop the language for the rights section, we relied on input and review from our children and their friends. From this review, the student contribution “We have the right to have fun while learning,” was added (Fig. 2). After the language was approved by the MAC as a whole, I designed the object itself, typesetting and printing out a document 24 x 36 inches in size, with a formal, historical aesthetic that harkens to major American documents such as the Bill of Rights, one that was appropriate for a program that emphasized the study of the humanities and the law.

DESIGN STEP 4: EXPERIMENTATION

The first implementation of the Magnet Carta document as a secondary OPP occurred during the following academic year, 2008–2009. The teachers and director decided that, in the fall semester, students would sign the documents in public spaces during two different social studies field trips: seventh-grade students at the historic Alamo in San Antonio, site of a pivotal event in the Texas Revolution, and eighth-grade students at the Austin State Capital which houses the Office of the Governor and Texas Legislature. The “signing ceremonies” occurred after lunch, with one student reading aloud the document before students signed (Fig. 3). The signed documents were then framed and hung within the office of the Magnet director. While the director was pleased with this initial solution, I was troubled by the implementation. I believed that, in the field trip setting, there was inadequate time for students to read and understand the document itself. This set a bad precedent for their future practices of signing documents, and allowed no opportunity for student discussion or even dissent. And while a few students had previewed and amended the contents and amended, I believed wider student participation was needed. Additionally, “Director A” (so called to preserve privacy) located the signed documents in a semi-private space—her office—that, in the experience among many students, would be associated with out-of-the-ordinary visits to the director’s office. No further conversations occurred because, at the end of the academic year, the Magnet director was removed from the job.

DESIGN STEP 5: EVOLUTION I

With the sudden replacement of Director A, the question was whether the project would continue at all. At that point, I was a more experienced, “senior” parent in the school community, who had a record of effective engagement with both faculty and administration. In addition, my second son had enrolled in the magnet

Whereas, we students believe that
 We have the right to be heard
 We have the right to be respected
 We have the right to contribute positively
 We have the right to learn
 We have the right to have fun while learning
 We have the right to be the unique persons that we are
 and, in order to obtain these rights
 We must also afford these rights to others.
 We now, therefore, proclaim this Magnet Carta as a
 common standard of achievement for all peoples of [this]
 Magnet Program, to the end that every student, keeping this
 Declaration constantly in mind, through practice and
 education, shall strive to promote respect for these rights
 both among the peoples of this Program, and among our
 social groups beyond.
 ARTICLE 1 We commit to our own individual authority to
 develop our own minds and behaviour in order to engage
 our minds to our greatest capacities;
 ARTICLE 2 We agree that all students have the right to
 learn from class and are responsible for the impact of their
 individual actions upon others and themselves;
 ARTICLE 3 We accept the consequences, be it positive
 and negative results from those actions and decisions; and,
 ARTICLE 4 We proclaim that methods we can use to
 accomplish these ideals include: Completing assignments
 by due date • Listening to the teacher and to each other •
 Treating teachers and each other as we would like to be
 treated • Following classroom agreements •
 Communicating with teachers and each other in a
 respectful way when we have issues and concerns,
 academic or social • Doing our own work, as those who
 cheat ultimately are cheating themselves.

Figure 2: The language for the inaugural Magnet Carta document

program, entering sixth grade. I was committed to finding a better way forward for the magnet students as a critical step toward preserving the integrated program. For this new class of magnet students, I saw a potential to evolve the Magnet Carta project towards a co-designed model for improving student commitment to their education throughout their schooling, renewed with the inflow of new participants every year.

Fortunately, the new director, “Director B,” saw value in the project and suggested that we continue. With the demands of beginning and learning a new job at the campus, Director B agreed to a proposal to keep the document the same but with an important adjustment: moving the point in time when a student was introduced to and signed the Magnet Carta document, and locating the event on the school premises during the school day. This advance was a positive move, one that created the possibility of time for students to discuss in depth their

expectations and reasons for seeking enrolment with the Magnet program—and thereby providing both context and reasons for the document that they would sign.

The 2009-2010 workshop took on a dialogic format: free form and based on attuned listening. I would ask open-ended and general questions, truly curious to hear what brought students to the program, to hear about what it was like for them to make those decisions to apply (if voluntary; if not, why they thought their parents wanted them to do so); and what their expectations were in making this choice. My practice shifted toward facilitation and visually taking notes and collecting their thoughts. The workshop was adapted into the fabric of the students' school week, taking place in September; I met with them as a special session during their scheduled Social Studies course. Both teachers and the director came to observe

Thus, for the second iteration (academic year 2009–2010), while the designed *Magnet Carta* document itself remained essentially the same, we began to move toward participation in the overall Magnet Carta Project through the inclusion of discussion and dialogue with students, but no creation or amendment of content.

DESIGN STEP 6: EVOLUTION CONTINUES

The Magnet Carta Project next evolved to include both student discussion *and* development of the document's content. The co-design workshops became sites for student contributions of ideas as well as voting on the language of the document to be signed. And with these iterations came changes in the participation methods. In the 2010-2011, along with the free-form dialogic format, I employed the earlier signed versions, which became a guide to the recent past history of students entering the program, enabling new students to discover similarities and differences in thinking from their predecessors. This began the process of students offering amendments (Fig. 4)—which, if time allowed, were discussed and debated. I developed my methods for making sure that all students in each session were able to speak by distributing large sheets of paper to each set of clustered tables, thus allowing students to write their thoughts, and enabling a spokesperson to read them aloud for the table.

The workshop of 2010-2011 also saw a shift in the placement of the workshop per suggestion of the Director. No longer incorporated into the regular school semester, the workshop occurred during a recommended “transition camp,” as an initiative to provide additional instructional time while supporting the major transition from elementary-structured learning to middle school level learning styles. Within the four-day transition camp, we attempted to bring the workshop and the signing of the document into one condensed time period. Introduced at the beginning of the transition camp, students were able to sign the document as well as share it with parents and faculty by the last day during the potluck luncheon. While imperfect in terms of a ceremonial adoption of shared aspirations, it

provided the groundwork for the director in achieving almost 100% student participation.

The chart below (Fig. 5) summarizes the development of the Magnet Carta project from its introduction in 2008 through the academic year, 2014-2015. It is important to note the changing conditions for each year's workshop—the number of students and the times

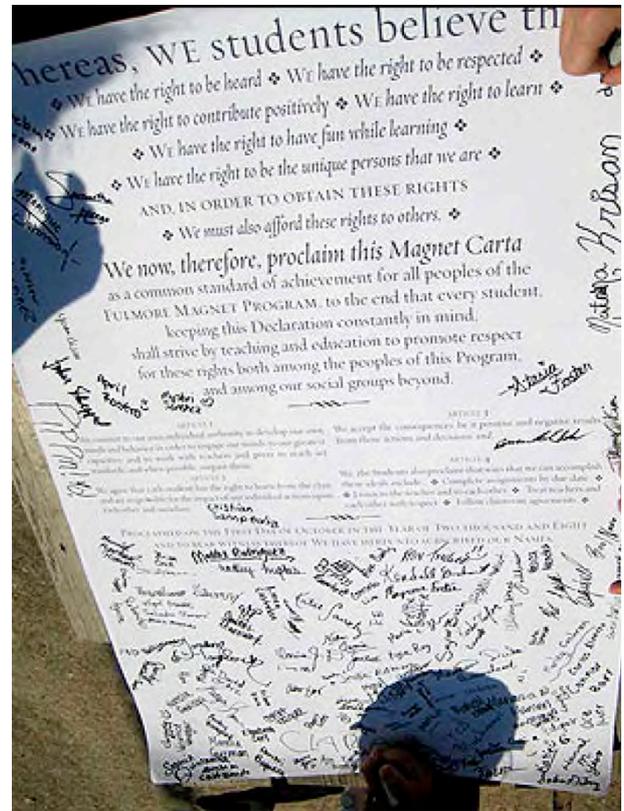


Figure 3: The Magnet Carta document from 2008, after a field trip signing ceremony.

<p>2009-2010 (original document): “We have the right to have fun while learning”</p> <p>2011-2012: Amendments were offered; none gained critical mass in light of the feedback of individual versus group rights</p> <p>2012-2013: Amendment added: “We have the right not to be judged because of our beliefs” which we altered to “We have the right not to be disrespected because of our beliefs.”</p> <p>2013-2014: Three amendments offered; no time to discuss. None voted upon.</p>

Figure 4: Summary of Student amendments Activity

students met regarding the Magnet Carta—a reflection of the district's shifting and shrinking resources to support a transition camp for incoming middle school students. The diminished amount of time allowed for dialogue is also reflected in workshop format—moving from dialogic learning toward a constricted and formalized lesson plan. Finally, during this last iteration, I ran the workshop regarding student rights (but without utilizing the Magnet Carta object) with one section of comprehensive students during transition camp.

Year	Director	Workshop Length + Size	Structure + Timing	Signing of the MC
2008-2009	D-1	N/A	N/A	Field trip mid-year
2009-2010	D-2	One 1-hour; approx. 100 students divided into 4 groups	Dialogic; During school (Sept) in Social studies class	During school (Sept) in Social studies class
2010-2011	D-2	One 1-hour; approx. 100 students divided into 4 groups	Dialogic; During four-day transition camp (August)	End of transition camp
2011-2012	D-3	Two 45-minute sessions; 109 students divided into 4 groups;	Dialogue with lesson plan; homework and voting structure;	End of transition camp
2012-2013	D-3	Two 40-minute sessions; 107 students divided into 6 groups	Dialogue with lesson plan; homework and voting structure	End of transition camp
2013-2014	D-3	Two 35-minute sessions; 117 students in 6 groups;	Dialogue with lesson plan; homework and voting structure	End of transition camp
2014-2015	D-4	One 30-minute session; 120 students plus 40 comprehensive students in 8 groups;	Lesson plan; homework and voting structure	During school (Sept) in Social studies class

Figure 5: Summary Description of the Magnet Carta project

RESULTS AND EVALUATION

Overall, the Magnet Carta project, through its evolution and obstacles, and within ever-changing economic, social and educational environments, has value as a touchstone for the students and for some teachers. My evaluation of the project is based upon three indicators.

The first comes from the voting ballot itself. With the evolution of the workshop into a curricular format, I introduced two simple questions into the ballot which enabled students not only to endorse specific rights and statements but to opine anonymously on the value of the document itself. The answers over four years indicate that incoming sixth graders see value: For “Do you think this understanding [about rights and responsibilities] might be helpful during the school year?” the majority of students believed that this had some value [Fig. 6]. The numbers were even higher for the question related to whether the project could be helpful for teachers [Fig. 7].

Thus, the document could improve teachers’ understanding of their magnet students, and facilitate communication. Teachers reported back that students discussed the document among themselves, and on occasion invoked its language when challenging a teacher to respect their rights as students—the challenge a matter of civil discourse rather than rebellion against the teacher’s authority. Each year, I also continued a communication cycle, providing short recaps of prior workshops for the director and faculty, with notes about amendments and ideas offered by students, and their voting pattern on the Magnet Carta itself. An additional form of student support for the value of the project is their engagement in discussing amendments for the content of the document. For students to reflect and offer ideas indicates that they have taken participation in Magnet Program to a different level, beyond getting good grades and behaving well.

The second indicator is the public display of these the documents (three in total). Positioned in a busy hallway just outside of the relocated and more accessible magnet director’s office, these non- flashy, text-based documents overtly declare the existence of the magnet program on campus. A final indicator was the continued interest in renewing the project each year as the program went through four different Magnet Program Directors. After this last iteration (2014-2015), the fourth and current Director indicated that she personally wishes to sustain and evolve project, and has asked to be “trained” to work with new classes of students on this project. In summary, this project resulted in a redesigned experience of the magnet program shared by faculty, administrators and students and which is renewed yearly, as new members join the community.

	2011-2012	2012-2013	2013-2014	2014-2015
Yes	92%	89%	76%	87%
Sort of	4%	11%	23%	13%
No	4%	0	1%	0

Figure 6: Responses to “Do you think this understanding might be helpful during the school year?”

	2011-2012	2012-2013	2013-2014	2014-2015
Yes	95%	90%	80%	81%
Sort of	5%	10%	18%	19%
No	0%	0%	2%	0%

Figure 7: Responses to “Do you think this understanding might be helpful for the teachers?”

DISCUSSION

In “Design Participation Tactics,” Yanki Lee distinguishes between designer-driven innovation (toward a mission or end goal) and Design Participation—people-centred collaboration, co-design, and co-creation (2008). While innovation is top-down and serves the system (by increasing efficiency, for example), design participation, via bottom-up tactics, can change the rules and even the nature of the system. This implies a critical shift in design thinking: from designing “for” people to designing “with” people. In this case study of an semi-designer-driven innovation nested inside a prior innovation, the paradox was the exclusion of a particular strong stakeholder group—the magnet students who had proved their agency through their efforts to be accepted into the magnet program but who were then stripped of it once on campus. Following Lee’s argument, a participatory approach that included active engagement from user communities would lead to better results through the Magnet Carta project.

The Magnet Carta project answered the problem of magnet students lacking any shared sense of values, roles and identities. The students play an active role in the conceived space of the program through developing documents that help define their roles and activity in the program. Additionally, the public display of three

documents in a busy hallway subtly changes the lived space of the campus.

As design aims have shifted throughout the Design Participation typology, from innovation to collaboration to emancipation, my role as a designer has shifted as well. Initially, in addition to my community member role (parent), I served as expert, graphic designer and craftsman, designing and typesetting the Magnet Carta document itself. As the project continued, my role shifted to stimulator and co-designer for the workshop, which became a forum for student participation in developing the designed object as a touchstone around which to assemble.

With the current director requesting to learn how to run this workshop in order to take on the project, I will be shifted out of Design Participation into the role of an expert consultant who is working in the abstract—and I am comfortable with that shift. I believe that my part in the school community is over, as my awareness of the daily practice of the program fades. I have no empirical data for the changes in physical, intellectual and social space practices on campus; I am not woven into the communication among parents and students at any level—lacking knowledge of daily news or even major school events.

The Director holds a vision that this model of student voice can be extended to all the students in the middle school, and my work with comprehensive students during the last workshop indicates possibilities for this as well. This could be a pathway for bringing all student voices into the educational system, helping them to define their educational space. In addition, the middle school continues its effort to diversify incoming magnet classes. These students will continue to re-design the document to match their own hopes, expectations, values, and commitments. If this becomes the case, I believe we might view the Magnet Carta Project as sustainable and innovative model of participatory design within this campus. Despite the complexities surrounding magnet education within the state of Texas, this application of an open design process with users included at every stage, moves forward toward constructive solutions.

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REFERENCES

Austin Independent School District. 2014. *Admissions Intradistrict Transfer and Classroom Assignments*. [pdf] Available at: <<http://pol.tasb.org/Policy/Download/1146?filename=FDB%28LOCAL%29.pdf>> [Accessed 1/1/2015.]

Austin Independent School District. 2014. *Ethnic Status of Campuses*. [pdf] Available at: <<http://www.austinisd.org/sites/default/files/dept/parent-info/docs/Transfers-2015-16.pdf#page=2>> [Accessed 2/1/2015.]

Austin Independent School District. 2014. “Special Education” [on-line]. Available at: <<https://www.austinisd.org/academics/sped>> [Accessed 1/20/2015].

Chen, G. 2014. “What Is A Magnet School.” Public School Review [on-line]. Available at: <<http://www.publicschoolreview.com/blog/what-is-a-magnet-school/>> [Accessed 1/15/2015]

Computer Professionals for Social Responsibility (CPSR), 2005. “Issues: Participatory Design” [online]. Available at: <<http://cpsr.org/issues/pd/>> [Accessed 1/1/2015.]

Ehn, P and Kyng, M. 1987. "The Collective Resource Approach to Systems Design". *Computers and Democracy - A Scandinavian Challenge*. Aldershot, UK: Avebury. pp. 17–58.

Ehn, P. 2008. “Participation in Design things.” Proceedings of the Tenth Anniversary Conference on Participatory Design. [online] Available at: <<http://dl.acm.org/citation.cfm?id=1795248&CFID=478048726&CFTOKEN=83035811>> [Accessed 9/15/2014.]

Houston Independent School District. *The High School for the Performing and Visual Arts*. [pdf] Available at: <<http://www.houstonisd.org/cms/lib2/TX01001591/Centricity/Domain/23891/School%20Profile%202014-15.pdf>> [Accessed 1/5/2015.]

Lee, Y. 2008. “Design participation tactics: the challenges and new roles for designers in the co-design process.” *CoDesign*, 4(1), pp.31–50.

Lefebvre, H. 1991. *The Production of Space*. Trans. Donald Nicholson-Smith. Oxford: Blackwell.

Manzini, E. and Rizzo, F. 2011 “Small projects/large changes: Participatory design as an open participated process.” *CoDesign*, 7(3-4) pp.199-215.

Niesen, Valerie. 2000. *Transition from elementary to middle school: strategies for educators*. [pdf] National Association of School Psychologists. Available at: <http://www.nasponline.org/communications/spawareness/transition_elem2mid.pdf> [Accessed 1/9/2015.]

Sanders, E. B.-N. 2002. *From User-Centered to Participatory Design Approaches*. [pdf] Available at <http://www.maketools.com/articles-papers/FromUsercenteredtoParticipatory_Sanders_%2002.pdf> [Accessed 6/15/2014]

Taboada, M. “Poor, minority students missing out on Austin’s popular magnet programs.” Austin American Statesman [on-line]. Available at: <<http://www.statesman.com/news/news/local-education/poor-minority-students-missing-out-on-austins-popu/nj67L/>> [Accessed 2/9/2015]