Physical Characteristics and Settings in Teacher Images:
Student Perceptions of the Profession

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Abstract:

This study examined sets of teacher images created by preservice teachers. There were two drawings in each set; the first was drawn at the beginning of a semester and the second at the end. After the first images were completed, they were shared in class amidst a discussion which incorporated topics such as statistics, cultural trends, responsibilities, and stereotypes of teachers. Semiotic analyses of the first teacher images presented teachers as dull, stereotypical figures. While there were still some dull, stereotypical teachers in the second set of teacher images, there were a greater percentage of engaged, expressive, and technologically proficient teachers. It appears that the discussion in class, as well as subsequent discussions and course materials, may have influenced the re-thinking of the students' initial images and subsequent reshaping of second images. Examining tacit assumptions of teachers using images can benefit new teachers as they begin to formulate their own teacher identities. Such reflection can proactively change potentially uninformed or negative assumptions.

Key Words:

1. preservice teachers, 2. produced images, 3. visual semiotics, 4. perceptions of teaching,

    5. longitudinal case study

Main text introduction

Drawings are a unique way of conveying meaning, as they reflect facets of the artist's/

producer's thoughts and ideas, their current and past contextual experiences, as well as social

and cultural influences. In the field of semiotics, these drawings (or externalized forms) are

representations—which can take the form of pictures, diagrams, graphs, indeed any material

format that attempts to capture meaning. The creation of representations in order to understand

the world is both typical and critical to all aspects of human life. For example, engineers may

create diagrams and architects may design blueprints and while the two final representations

may be quite different, both work towards the same end goal—the use of an image in order to

further meaning and understanding.

This study builds upon an earlier, smaller study where I began to examine the impact of

teacher images as created by preservice teachers. Preservice teachers are students who may be

spending time in the field, but who have not yet completed a teacher education program nor have

obtained their teaching license. When preservice teachers are asked to draw images of teachers,

the resulting representations literally illustrate their understandings, assumptions, and feelings

about teachers and the teaching profession. These images may also be indicative of particular

values (i.e., personal, social, or cultural) held by the preservice teachers. By analyzing such

images, I hoped to identify preservice teachers' conspicuous and covert assumptions about teachers in the pursuit of improving teacher education coursework and curricula.

Preservice teachers' learning trajectories can depend heavily on their own experiences and values as well as on the communities of practices they encounter (or have encountered) in schools. Future teaching practices are often greatly influenced by who preservice teachers are, where they come from, and how they see teaching. While preservice teachers are in our teacher education programs and courses, we need to consider how our teachings and coursework may influence these candidates' learning trajectories. I believe that understanding student ideologies is an important component in helping teacher educators aid preservice teachers' educational and professional development.

Images and research in education

Growing attention is being paid to the image as a research material as the utilization of visual artifacts or the inclusion of visual technologies becomes a more frequent practice in research methodologies (Hall, 2013). Although educational research has tended to produce research that focuses on words and numbers, images can reveal refined layers of meaning/s, contrapositions, even surprising concepts that would not have seemed to influenced the image-making process. It is often said that a picture is worth a thousand words, but it is the process from image production, transformation, transmission, and visual analysis to the identification of those words that remains a challenge for all researchers working with images: "Not all semiotic signs or systems are equal in their epistemological returns from use…the level and complexity of what can be known through and from other semiotic signs and systems await our necessary investigation" (Prain & Hand, 2016, p. 433).

The incorporation of visual materials or methods asks researchers to think about perception and reception of images as well as the surrounding conditions that may have influenced the artist/producer of the image. Drawings serve as a projection of sorts of a particular individual's thoughts, feelings, and perceptions. To ask someone to simply "draw a teacher," is not such a simple task, but rather, a somewhat ambiguous one. Individuals complete such a task by using their own meaning-making skills, interpretation, and past experiences. This can result in a product that attempts to outwardly reflect that individual's emotions, needs, and expectations (Zubin, Eron, & Schumer, 1965). Although this research was not intentionally designed as an experiment in self projection, the nature of asking someone to draw is imbued with results that may tap into an individual's thoughts and feelings, needs and expectations, especially when drawing something that is related to their studies, future professions, and themselves. Indeed, some students' drawings were hopeful self-portraits of their future selves. As the focus of this study was not to measure the projected self (Machover, 1980), intelligence quotient (Reynolds & Hickman, 2004) or cognitive maturity of the participants (Harris, 1963), this data was not specifically analyzed for those indicators.

However, some general considerations with regards to interpreting a drawing of a person were taken from selected research on projected drawing tests, but this was tempered with the fact that most of this research was done with children and not adults. First, while most drawings depicted tangible characteristics that could be counted (i.e., a drawing of a man in a blue suit), some drawings did not depict a human figure at all, but rather expressions of mood and/or attitude (i.e., a drawing of swirls of various colors punctuated with the words "caring," "patient," and "intelligent"). The differences in drawings that depicted "durable" characteristics as opposed to "transient" ones (Ogdon, 2001, p.72) were important to note as transient characteristics could not be counted/measured in the same way as durable ones could for the purposes of this study. Next, chronological age was considered as older students tend to produce more detailed and

complex drawings. Drawings that were not sufficiently detailed were not the norm, but some were submitted. These drawings did not necessarily indicate any deficiencies as all students in this study were enrolled in an accelerated program of education with pre-enrollment GPA and test score requirements. Rather, it was more likely that those students did not give this assignment the time and attention necessary to result in a drawing with sufficient detail for analysis. Finally, gender differences seem to be evident in some drawings of the human figure (Cherney, et. al., 2006; Oluremi, 2010). These studies found that women tended to include more details when drawing the physical form/body and clothing of human figure than males did. With a sample population that remained primarily female over the 6-year span of data collection for this study, this was an important aspect to consider when analyzing image data.

Materials and methods

The setting for this study was a required course within a teacher education program that focused on foundational principles and practices of education. This course was designed specifically for preservice teachers, regardless of content area discipline or type of teacher certification. The course had a mandatory clinical experience component of 20 hours of fieldwork in a classroom within an urban school setting. It took place in a small, liberal arts college in New Jersey, in the northeastern United States. This case study used both qualitative and quantitative research methods to focus on the ways that students attributed certain characteristics to the teaching profession based on visual signifiers in their drawings of teachers.

In a study that concentrated on identifying preservice teacher concerns, Swennen, Jörg, and Korthagen found that drawings appeared to be "a reasonably reliable and valid means of assessing concerns" (2004, p. 265) when used in mixed methodology that combined image-based and more traditional research techniques. In order to analyze the images in this research, I

drew upon the social semiotic approach to reading images, as described by Kress and van Leeuwen (1996). Kress and van Leeuwen emphasize not only the importance of an image's elements, but also how these elements and the image as a whole are situated and shaped by particular social contexts. In addition to a qualitative, ethnographic approach to the research (Cresswell, 1998) and methods for visual semiotic analysis of the images (Kress and van Leeuwen, 1996), constructivist grounded theory methodology was used to facilitate the coding of descriptive themes that emerged from the textual data (Charmaz, 2000). All images and accompanying textual data (n = 538) were used for analysis.

Data collection

In this case study, I collected a set of two images (n = 538) created by students (n = 269) over the course of 6 years (12 consecutive semesters) from spring 2014 to fall 2019. This study builds upon the premise of an earlier, smaller study where I first began to examine the impact of teacher images as created by preservice teachers (Katić, 2008). In this current work, I expand from that small case study with a sampling of 4 semesters and an n of 32, to a longitudinal case study spanning 6 years with an n that has multiplied by more than 16 times.

Two teacher images were drawn by the preservice teachers, one at the beginning and one at the end of each semester. Data collection included both teacher images as well as textual responses to prompts for each of the images created. For the first image, preservice teachers were given a week to create their images, a sheet of blank paper, and straightforward directions: "On a blank piece of paper, using colored markers, crayons, pencils, or paints, draw a teacher. Include as much detail as possible. Relax and enjoy the process. Do not allow yourself to be interrupted. Do not worry about artistic ability—this is not an art activity. While I am aware that not everyone prefers visually-oriented tasks, I am also aware of the difference between a solid

effort and a five-minute effort." No prior context was given, such as what the students should draw or why they were drawing a teacher.

After drawing their teachers, they were asked to respond to a series of textual prompts that were designed to clarify their motivation/s, thoughts, and feelings during the creation of their images: "Examine your completed drawing and write down your thoughts and reactions to what you have drawn. Answer the following questions: 1. What did you think, feel, or set out to do when beginning this task? 2. Who or what does the drawing remind you of? 3. Who might this drawing be based on? (for example, fictitious or real teachers, media images, a composite of past teacher, etc.) 4. How does the drawing relate to your personal life experience?" An intentional discussion of the first set of teacher images was held in class after the first images were created. This discussion focused on the ways that teacher identities can be constructed through dominant narratives, ideologies, and existing stereotypes as well as assumptions, responsibilities, and factual statistics related to the teaching profession. While all these topics were touched upon during the remainder of the semester, they were not revisited with the same intensity as during this initial discussion.

At the end of a semester that covered a variety of foundational educational topics (i.e., teacher responsibilities, lesson planning, classroom management, philosophies, etc.), students were again asked to draw a teacher and given the same prompts for drawing as for the first image. Again, they were asked to respond to a series of textual prompts, but the second set of textual prompts focused on identifying any changes/comparisons between the first image and the second and the possible reasons for these changes: "1. What are some of the things that you thought about before beginning this drawing? 2. Are there any similarities between this drawing and your drawing of a teacher at the beginning of the semester? If so, what are the similarities? 3. Are they any differences between this drawing and your drawing of a teacher at the beginning of this semester? If so, what are the differences?"

All elements of the rendered teachers' appearance, dress, and accessories in each drawing were coded, as well as perceived genders, facial expressions, and items, tools, and props that were present in the drawn classrooms. Codes were not developed a priori, but rather became part of the working code list as each drawing was coded. For example, in the first drawing where a teacher was rendered working at a computer, at that time the code "computer" was added to the working code list and would remain as a possible code for all following drawings. The final code list consisted of 111 specific appearance, dress, color, and item codes. This essay focuses on 57 of those 111 specific codes, namely those identifying the physical appearance of the teacher images and elements present in the settings around the teacher figure.

Results

Results: physical characteristics

Across both teacher drawings, immediately observable and majority physical characteristics of the teacher representations were: female, young, white, with a "normal" or "average" appearance (See Table 1 and Figures 1, 2, & 3). The National Center for Education Statistics reported in the 2017-2018 school year that 76.5% of all teachers in the United States were female (NCES, 2022). It may be art reflecting life, for the number of female teacher images remained relatively equable from the first (79.18%) to the second (76.52%) drawing as well as relatively close to the national average of 76.5%. This may be due in part to historical legacy, as women have made up the majority of the teaching population (particularly in the elementary grades) ever since the mid-19th century. At that time, teaching became a pursuit appropriate for women (should they choose a pursuit other than marrying and child-rearing), as it was considered somewhat akin to child-minding and therefore suitable to innate maternal instincts. In

addition, although women completed the same teacher education programs and internships as men, they could be paid significantly less than their male counterparts and schools took advantage of this fiscal serendipity (Rury, 2016). While not all female students drew female teachers, most did, and the high percentage of female teacher images may also be a result of self-projection as female students made up 79% of the study sample population.

Another majority physical characteristic across both drawings was that teachers retained a youthful appearance (See all figures save Figure 2). The average median age of teachers in the 2017-2018 school year was 42 years and 85% of all teachers were over the age of 30 years (NCES, 2018). However, few students drew signifiers that indicated ages beyond the flush of youth, such as lines, wrinkles, under eye bags or grey hair (See Figure 2). Representative teacher ages were in direct inverse to real-life teacher ages as youthful teacher images increased by 5.6% by the second drawing to 84.85%. Teacher representations that were of an observable older person decreased from the first to the second drawing by 51% (from 17.47% to 8.17%). While the beauty and plastic surgery industries have certainly come a long way in creating products and services that attempt to disguise the aging processes, there is still an obvious difference in appearance between persons of 20 and 40 years. That students consistently drew teachers that were not in the majority age range (above 30 years) may again indicate self-projection, as the majority of the student sample ranged in age from about 19-24 years. In addition, cultural expectations in the United States (particularly for women) to appear youthful may have also subconsciously played a part in the representation of teachers' ages across both drawings.

The teacher images also had a "normal" or "average" appearance as a further majority physical characteristic. Healthy weight was coded for any size or shape human figure that did not use drawing elements/techniques that called attention to extra weight (i.e., intentionally drawn love-handles around the torso) or an unhealthy constitution due to extra weight (i.e., sweat droplets coming from the head of a figure or a profoundly rounded mid-section). Normal

or average appearance was coded for any human figure that did not use drawing elements/ techniques that called attention to a physical characteristic that was out of the ordinary/abnormal (i.e., horns protruding from forehead), intentionally unattractive (i.e., yellow teeth), or ugly (i.e., stereotypically witch-like, complete with wild black hair and warts). Most teacher images were safely unremarkable in their normalcy as their appearance fell well within the average and not the ends of the appearance continuum (See all figures). They were also incredibly non-sexualized—very few teacher images used drawing elements to draw a viewer's eye to sexualized clothing (i.e., very high heels with a very short skirt) or a sexualized body (i.e., cleavage, bulging trousers). Female breasts were the only body part that were occasionally alluded to through clothing shape (See Figure 3).

Whatever the age of the teachers in either drawing, teacher images remained primarily white across both drawings, consistent with both the study sample population (92.20% white), as well as the actual teacher population in the United States (See all figures save Figure 5). About 79% of teachers in the United States are white and teach in schools where the majority of students are white (93% white students) as well as in schools where the majority are students of color (54% black, 54% Hispanic, 60% Asian, 61% American Indian/Alaska Native) (NCES, 2020). It is likely and not unreasonable that students drew likenesses of teachers that had taught them in the past, that they had seen in their schools, that they had seen in the media, and that looked like themselves. The greater percentage of white teachers in the United States may be a contributing factor to why white students as well as students of color drew few teachers of color in either drawing (See Figure 5). It may also contribute to why students of color have difficulty seeing themselves as members of the teaching profession, as well as the relatively small number of students of color in collegiate teacher education programs despite multiple diversity and retention measures implemented by these programs.

According to Manning (2010), there are negative stereotypes associated with certain hair lengths and colors, namely lighter and longer (both coincidentally, or not, associated with youth). Women generally have longer head hair than men and generally spend significantly more time and money styling and maintaining it. Long, "feminine" hair is seen as superficial or focused on appearance, while shorter, darker hair is often perceived as more masculine and focused on practicality and substance.

In the first set of teacher images, more teachers were drawn with short, dark hair, or long hair of various hues that was pulled back into a ponytail or bun (See all figures save figure 4). There are more naturally dark-haired people (75-84%, depending on the study) on earth than there are light haired people (blond/red: 5%) (Wood, 2022). Societal conditioning, cultural ideology, and popular media however, all also promote a message that successful professionals have more "masculine" hairstyles (shorter, or pulled back to appear short) in darker, more serious colors (Manning, 2010). Moreover, negative stereotypes related to women and hair color (i.e., dumb blonde, hot-tempered redhead) might also account for the lower number of light-haired professionals depicted in both drawings.

From the first (71.38%) to the second (70.83%) drawing, the number of dark-haired teachers remained relatively equable and the number of light-haired teachers did not increase (See Figures 1, 5, 6, & 7). However, by the second drawing, the number of teachers with longer (or untied) hair increased by 19.23% (See Table 1). Perhaps students rejected the assumption that all successful educators needed to have more masculine appearance characteristics, or perhaps they felt more empowered to draw individuals that reflected their own identities and projections. The shift in hair length may reflect a legitimization of non-dominant hair style or a growth in self-expression from a group that also happened to be primarily composed of women. Conversely, facial hair (i.e., mustache, beard, or stubble) for male teachers was not a majority characteristic (5.20%) to begin with and decreased by 14.28% in favor of a completely clean-

shaven face by the second drawing (4.20%; See Figure 7). The decrease in facial hair may reflect a desire to portray a more professional appearance, as facial hair can also be associated with an unkempt or ungroomed appearance.

Finally, teacher images retained a pleasant, smiling countenance across both drawings (80.30% and 81.82% respectively), despite discussions across the semester that considered the difficulties, frustrations, and injustices that often accompany the teaching profession (See Figures 1, 3, & 6). Students who pursue teacher education are often drawn to the profession's humanistic, interpersonal, and caring aspects, so it was not very surprising to see many smiling faces in the drawings. Very few of the non-smiling teacher images were actually frowning or scowling, but rather had neutral or "busy" expressions (as explained in students' textual prompt responses), as they taught class, worked with students, or planned their day (See Figures 2, 4, 5, & 7).

Results: setting elements and props

While a small number of teacher images were drawn in complete isolation (See Figure 6), the majority of images (for both drawings) included setting elements and/or props that helped to signify the purpose of the central figure (See Figures 1, 3, 4, 5, & 7). Some setting elements were spare or simplistic (See Figure 3) while others were richly detailed (See Figure 7), but all served to give the viewer context cues as to the function or identity of the drawn person. There was a wide variety of setting elements ranging from reading rugs to windows to posters, as well as variety of props, from books to graded papers to coffee mugs. While many of these setting elements and props were present in both drawings to various degrees, by the second drawing, there was an observable increase in modern presentation tools, student desks, students, student activity, student diversity, and use of technology (See Table 2 and Figure 7).

Modern presentation technologies were more visible by the second drawing. In 29.37% of the first drawings, students drew green or black chalkboards or whiteboards (27.14%) as part of the teacher's setting (See Figure 3). By the second drawing, green and black chalkboards decreased by 24.05% to 22.73% and were replaced by whiteboards (43.18%; an increase of 35.96%) and smartboards (25.00%; an increase of 78.78%), sometimes accompanied by desktop computers, laptops, and/or iPads (14.02%; an increase of 59.45%; See Figures 4 & 7). The increases in more current technological presentation and classroom tools by the second drawing suggest some important changes in students' perceptions.

In the first drawing, students may have had initially low-technology assumptions about the tools used in the teaching profession. Actual chalkboards (with chalk as the writing medium) have been systematically phased out of United States classrooms in order to make room for whiteboards or smartboards, yet their inclusion in the first set of images was slightly greater than the number of whiteboards. Consider that the wooden or metal (not laser) pointer remained stable and appeared in about 10% of all images (both first and second). At the beginning of the semester, based on the results of the first set of teacher images, students perceived the teaching profession as traditional, timeless or perhaps stuck in time. They may have also been projecting their own past experiences and exposures to classroom technologies. Although many classrooms have been updated to include newer technologies, not all of them have been. There are certainly still classrooms where the green and black chalkboards remain as fixtures (as is the case in this college setting) or are used alongside whiteboards and/or smartboards.

By the second image however, many more teacher representations included technological tools that perhaps represented some of the students' current classroom experiences as well as the actual classrooms (including that of their clinical experience and/or professor's classroom) of current teachers. It is possible that the use of whiteboards and smartboards in their clinical experiences and (some) college classrooms, as well as course discussions about the changing

face of teaching over the course of the semester, may have changed students' perceptions about teachers' work and tools.

In the first drawing, 75.84% of teachers were drawn in isolation, meaning that the teacher representation was the only human figure in the drawing (See Figures 1, 2, 3, & 6). There may have been setting elements and tools in the image (or not), but there were no other people. By the second image, isolated teachers decreased by 53.43% (to 35.98%) as they were joined by at least one student (See Figures 4, 5, & 7). While the inclusion of teachers' desks remained relatively equable across both drawings (Drawing 1: 33.83%; Drawing 2: 33.71%), images of students increased by 65.85% (Drawing 1: 20.82%; Drawing 2: 62.12%) and students at their desks increased by 67.08% (Drawing 1: 19.70%; Drawing 2: 60.98%). The students in the second drawing were also more observably diverse students (i.e., different skin colors and hair styles) that were drawn engaged in classroom activities (i.e., with hands raised or working on class assignments). The increase in student presence suggests meaningful changes in students' perceptions as to teachers' roles and functions. Whereas the teachers in the first set of images were often themselves the focus, by the second set of images that focus had shifted to a teaching activity; namely, helping students learn through engaged interaction.

Discussion

Visual and discourse analyses of the first set of images resulted in a reading of teachers whose presentation, framing, and other modality cues indicated isolated, somewhat static, and stereotypical figures. Many of the students drew teachers that were white, female, young, and had an ordinary appearance. This trope dominated most of the drawings even when the students themselves did not have the physical characteristics that they drew into their pictures (i.e., a male student drawing a female teacher, or a Hispanic student drawing a white teacher) although most

students drew a teacher of the same gender identification as themselves. I believe students' self-identities, self-projections, personal experiences, and previous exposure to classrooms contributed to the relative equivalence of some majority physical characteristics between the first and second teacher images. It may have felt contrived or forced to draw a teacher that was in many respects so different from the students' own experiences, norms, and self-images, as well as from the teacher norms they had likely seen all around them during their Kindergarten to 12th grade reality in primarily United States schools.

Analyses of the second set of images seems to indicate a definite shift in the representation of teachers. The second set of teacher images showed individuals whose majority physical characteristics still generally conformed to the findings of the first set of teacher images, but which also showed individuals who were more engaged with students and using more modern technologies in the classroom. The second set of images tended to have more critical and active representations of educators, rather than the more static ones of the first images. By the second image, teaching was not perceived as an isolating activity, but rather, a cooperative one. There were approximately 65% more students in the second images and the focus of the drawing was frequently not on the teacher, but on the interactions between a teacher and a student.

The preservice teachers may have incorporated more intentionality into the second image as a result of discussions and course materials covered over the semester and subsequently drew teachers that exemplified the main focus of education: the teaching and learning exchange between teacher and students. Many of the second images exhibited more student-centered perspectives as well, as opposed to a teacher-centered (or self-centered) ones. There were also more visibly diverse groups of students in the second set of images, which may have resulted from the preservice teachers' experiences with the reality of the New Jersey population and/or

their fieldwork in their urban clinical experience classrooms, as brought to focus in their participation in the coursework and course discussions.

Teacher representations in the second set of images were rendered as more technologically savvy than in the first. The presence of more modern technological teaching tools in the drawings indicated a definite shift away from the first images, which often featured stereotypical, timeless images of a teachers standing in front of a blackboards (occasionally with pointers). The preservice teachers' participation in a college classroom that used computers, online course materials, and a smartboard, as well as their experiences in their clinical experience classrooms which used computer tablets, laptops, smartboards, and other technological tools may have significantly altered their perspectives of what constituted standard teaching tools. In addition, discussions about changing teacher responsibilities, preparation, and skill sets over the course of the semester may have also changed students' perceptions about teachers' work and tools.

The results of the preservice teachers' second teacher images (as compared to the first) would seem to indicate that the initial course discussion that focused (in part) on teacher assumptions, responsibilities, and factual statistics related to the teaching profession was important in the re-thinking of the initial teacher drawings and the subsequent reshaping of the second images. In addition, it is also possible that other elements of the course and/or the required clinical experience may have contributed to the reshaping of the second set of teacher images. Preservice teachers voluntarily recalled elements from course discussions throughout the semester and/or their clinical experience when explaining the differences between their first and second images (in responses to the textual prompts for Drawing 2).

In the first set of images, student ideologies helped create teacher representations that showed individuals who worked alone and were ostensibly one-dimensional — ideologies which may have a negative effect not only on preservice teacher recruitment but also on morale and

self-identity. Professor prompted discussions in the course that focused on tacit misconceptions of teachers and the teaching profession may have helped the students to broaden their perspectives from their own student experiences and assumptions and consider aspects of teaching that were more grounded in the actual facts and figures of the profession.

The use of images to mindfully reconstruct those assumptions can benefit new teachers as they begin to formulate their teacher identities and proactively change subliminal and potentially negative perceptions. Images offer an alternative way to generate meaning and are imbued with range, depth, and breadth of potential expression that text cannot always convey. I believe that through this exercise and research, students began to critically process and rethink teacher stereotypes in favor of their own personal and more genuine constructions. This is a powerful step in owning and actualizing their identities both as individuals and future teachers. Preservice teachers are in the process of constructing their own personal and professional teacher identities. The examination of their "teacher" or "teaching profession" ideologies therefore becomes an important part of understanding the students themselves as well as the choices they make regarding their educational preparation and futures.

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Figure Captions:

Please note: Figures were chosen to illustrate representative examples of the statistical results. Particular students or semesters were not favored in any way, but selected from the sum group of drawings that satisfied the illustrative purpose. Although all figures satisfy more than one code, captions were written with brevity in mind and to direct the reader to one (or a few) of the codes that the figure particularly illustrated as referred to in this manuscript.

Figure 1: Drawing of a teacher satisfying multiple codes. This image selected to particularly illustrate: "Observable Age: Young, not an older person." Drawing 1 (of 2) rendered in fall 2019 by a female student.

Figure 2: Drawing of a teacher satisfying multiple codes. This image selected to particularly illustrate: "Observable Age: A middle-aged or older person." Drawing 2 (of 2) rendered in spring 2019 by a female student.

Figure 3: Drawing of a teacher satisfying multiple codes. This image selected to particularly illustrate: "Hair: Light (Red)" and "Hair: Short or tied up/back (Above chin)." Drawing 1 (of 2) rendered in spring 2017 by a female student.

Figure 4: Drawing of a teacher satisfying multiple codes. This image selected to particularly illustrate: "Observable Race: White (not Hispanic)" and "Students present in the classroom." Drawing 2 (of 2) rendered in fall 2018 by a female student.

Figure 5: Drawing of a teacher satisfying multiple codes. This image selected to particularly illustrate: "Observable Race: Hispanic, Black, Asian, Other (non-White)." Drawing 2 (of 2) rendered in fall 2018 by a female student.

Figure 6: Drawing of a teacher satisfying multiple codes. This image selected to particularly illustrate: "Observable gender: Male" and "Teacher in isolation." Drawing 1 rendered in spring 2016 by a male student.

Figure 7: Drawing of a teacher satisfying multiple codes. This image selected to particularly illustrate: "Smartboard and Computer." Drawing 2 (of 2) rendered in spring 2018 by a male student.

Table 1: Physical Characteristics and Facial Expressions of Teacher Images

Please note: Percentages may total to more or less than 100% for various elements because not all teacher images were rendered for the observable characteristics in this study. For example, a student may have drawn a set of words and symbols to represent his/her teacher, instead of a human figure of a person. Some teacher images were drawn with multiple signifiers or no signifiers related to particular codes. For example, a teacher image may have been rendered with a head that sported half brown short hair and half long blonde hair and was thus coded for all types of hair that were rendered. Conversely, some teachers were less detailed images (i.e., stick figures) rendered without observable age and thus could not be coded for age.

Table 1: Physical Characteristics and Facial Expressions of Teacher Images

Criteria: (for all teacher images)	Drawing 1	Drawing 2	Significance
Observable Gender: Female	79.18%	76.52%	Teacher images stay female: No increase of male teachers; ratio remains relatively equable
Observable Gender: Male	20.07%	19.70%	
Observable Age: Young, not an older person	78.81%	84.85%	Teacher images get younger: Decrease in images of observably older teachers
Observable Age: A middle-aged or older person	17.47%	8.71%	
Observable Race: White (Not Hispanic)	92.19%	90.91%	Teacher images stay white: No increase in images of observably non-white teachers
Observable Race: Hispanic, Black, Asian, Other (Non-White)	5.95%	5.30%	
Physical Body Shape: Healthy weight	93.31%	90.91%	Teacher images stay thin: Slight decrease in observably overweight body shapes
Physical Body Shape: Overweight	5.58%	4.17%	

Observable appearance: normal/ average/attractive	87.73%	88.64%	Teacher images get made over: Decrease in observably unattractive or ugly representations
Observable appearance: Intentionally abnormal/ugly/ unattractive	11.90%	6.44%	
Hair: Dark (Brown/Black)	71.38%	70.83%	Teacher images are brunettes: ratios across hair colors remain relatively equable
Hair: Light (Blonde/Red)	24.54%	24.24%	
Hair: Grey	1.49%	0.00%	
Hair: Unnaturally occurring color (i.e., Blue, pink, etc.)	1.86%	1.14%	
Hair: Long or untied hair (Below chin)	46.84%	59.09%	Teacher images let it grow: Increase in images with long hair
Hair: Short or tied back (Above chin)	52.04%	38.64%	
Facial hair (i.e., Mustache, beard, stubble)	5.20%	4.20%	Teacher images keep it clean: slight decrease in facial hair
Facial Expression: Smiling	80.30%	81.82%	Teacher images stay happy: Relative stability in images with smiling faces

Table 2: Setting Elements and Props

Please note: Partial image elements rendered near the edges of the paper, such as half of a

chalkboard or the corner of a laptop, were coded as being included in the image.

Table 2: Setting Elements and Props

Criteria: (for all teacher images)	Drawing 1	Drawing 2	Significance
Chalkboard	29.37%	22.73%	Teacher images hook up: Slight decrease in images with chalkboards; increase in images
Wooden or Metal Pointer	10.41%	10.98%	
Whiteboard	27.14%	43.18%	

|			
Smartboard	5.20%	25.00%	with whiteboards, smart boards, and computers
Computer	5.58%	14.02%	
Desk/s: Teacher	33.83%	33.71%	Teacher images make room: Increase in numbers of student desks
Desk/s: Student	19.70%	60.98%	
Teacher in isolation	75.84%	35.98%	Teacher images don't go it alone: Increase in images that feature both teacher and students
Students present in classroom	20.82%	62.12%	

Figure 1.

Figure 2.
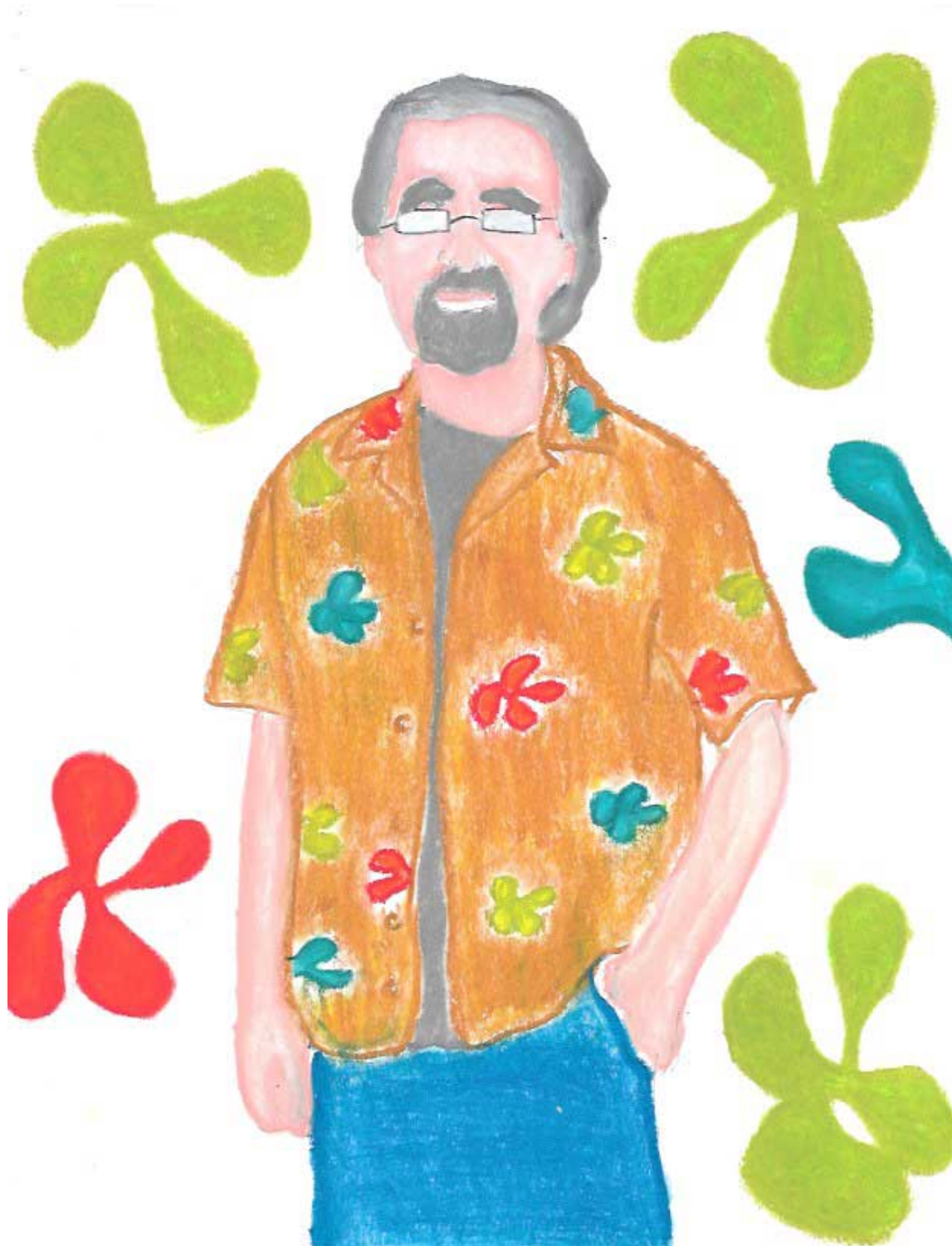
Figure 3.

Figure 4.

Figure 5.

Figure 6.

Figure 7.