# The Graphic Sex Project:

## A Creative Tool for Self-Reflection, Communication, and Research

Jennifer Beman
The Graphic Sex Project, Takoma Park, MD (USA)
Jen@GraphicSexProject.com

Amanda Freise [1]
https://orcid.org/0000-0002-8704-5185
Center for Positive Sexuality, Los Angeles, CA (USA)
Dept. of Microbiology, Immunology, and Molecular Genetics, University of California, Los Angeles (USA)

## Abstract

The Graphic Sex Project is a public art installation where participants make graphs of a good sexual experience using colored cubes. The goal of the project is to give people a way to reflect on and communicate their sexual desires and values, as well as showcase and normalize the wide variety of human sexual behaviors through a display of participant-made graphs. Here we describe the Graphic Sex Project and the results of a preliminary quantitative analysis. Our findings support the potential application of the Graphic Sex Project toward research into sexual desires and preferences, as well as a tool for therapeutic settings.

## Introduction

The Graphic Sex Project (GSP) is an interactive public art installation developed by J.B., one of the authors of this manuscript, that prompts people to visually depict what they consider a good sexual experience using colored cubes to represent different sexual activities. Participants are instructed to create a legend of activities, and arrange the cubes graphically in order of activity, using more cubes to represent proportionally more time spent on that activity. They are encouraged to share their creation with a sexual partner, as well as given the opportunity to share a picture of their graph with the GSP. Examples can be seen in Figure 1, as well as Supplemental File 1 with commentary, and at https://graphicsexproject.com/.

*Figure 1*

*Sample graphs created by participants.*
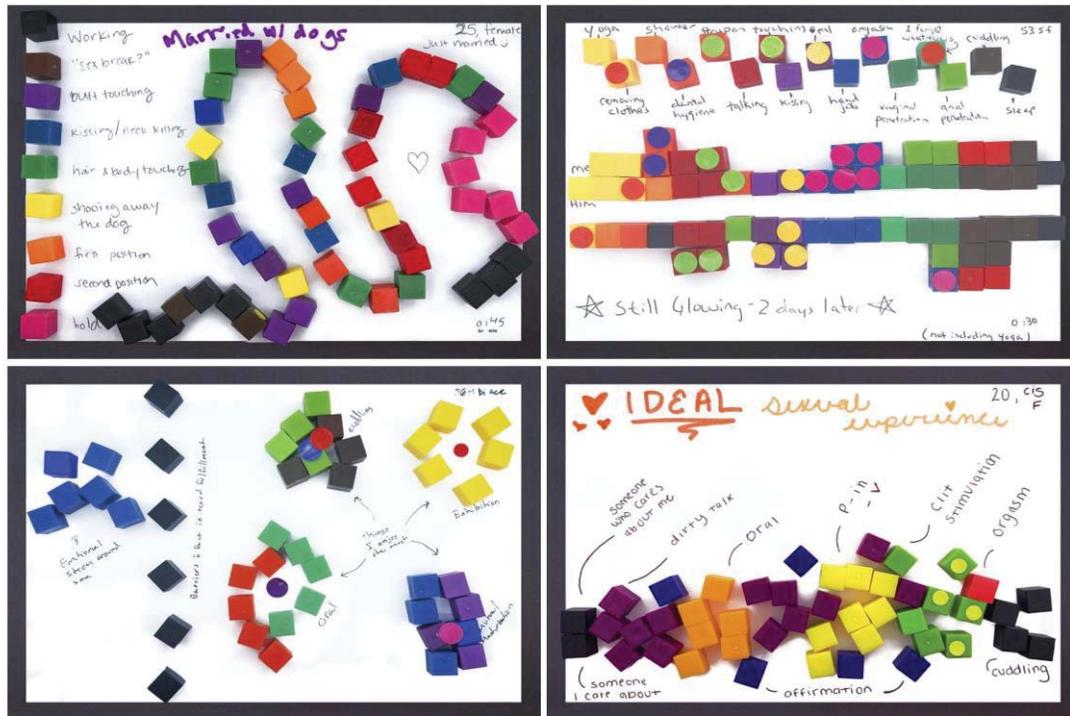


*Note.* Participants in the Graphic Sex Project are invited to create a graph depicting a good sexual experience using colored cubes. Examples clockwise from upper left: a 25-year old female participant graphs a day of co-working with her husband, with multiple instances of "shooing away the dog"; a 53-year-old female participant charts a recent great experience with dots to expand the 10 provided colors to 15; a 20-year-old cis female participant graphs her ideal experience with "someone who cares about me" and plenty of affirmation; a 36-year-old bi-asexual participant shows how emotional stress around sex separates them from sexual fulfillment.

## Sexual Self-Reflection

The GSP provides a path for exploration of sexual values and sexual scripts by giving people a way to use the creative process for individual reflection, similar to the way art therapy uses creativity to reveal feelings and perspectives that are difficult to put into words. The toy-like cubes have a playful association that intentionally de-sexualizes sex, so participants can relate to their sexual experiences from a new perspective, using different cognitive functions. The process defines and quantifies physical sexual activities, providing a representation of order and proportion that offers a unique way of looking at what the participant values and desires, and how that relates to what they typically enact.

Following this exercise in self-reflection, the participant now has a visual aid that could be used to center a conversation with a sexual partner. The process has been shown to be useful in the context of therapeutic work by a handful of therapists and educators who have used a modified version of the GSP with clients (personal communication with author

J.B.). The cubes can help a client work through issues, such as identifying their sexual values, by quantifying particular aspects of their sexual experience.

Like other collaborative art projects, such as "Before I Die" (Chang, 2011) in which people write personal aspirations on a public chalkboard, and PostSecret (Warren 2005) in which people mail in anonymous secrets, this project inspires self-reflection and human connection. It was not originally designed as a research tool; however, we recognized that this collection could be used as a form of arts-based research. As Barone and Eisner (2012) put it in their seminal work on arts-based research, "the means through which the arts function as illuminating vehicles may find expression and utility in research activities as well as in the arts themselves" (p. 8).

*Visualizing Sexual Scripts*

The GSP was created to address the problem that communicating about sex is difficult for many people. Many couples do not fully disclose their sexual likes and dislikes (MacNeil & Byers, 2009); couples may have difficulty resolving sexual issues due to challenges in discussing sexual topics (Byers, 2005). Even in long-term and committed relationships, studies have shown people do not disclose much sexual information to partners, even though sexual disclosure is positively associated with relationship satisfaction (Coffelt & Hess, 2014; Jones, 2016).

Sexual scripts, or patterns of sexual conduct acquired through acculturation (Laumann et al., 1994), are likely to play a role in how people conceive of, act out, and communicate about their sexual desires. These so-called scripts are the societal norms and narratives that provide guidelines for sexual behaviors (Mahay et al., 2001; Sakaluk et al., 2014). People do not necessarily enact the scripts provided by their culture exactly, "making adaptations to suit their own needs" (Laumann et al., 1994, p. 6), or creating socially transgressive scripts to enhance desire (Ogas & Gaddam, 2011). In a 2004 study, Miller and Byers showed how men and women's sexual performance scripts deviate from their ideal scripts, heavily influenced by gender stereotypes. They asked 152 heterosexual couples to report actual and ideal durations of foreplay and intercourse, as well as what they thought their partner's desired durations were. They found both genders had significant misperceptions of partner's ideal duration of foreplay and intercourse (Miller & Byers, 2004). Helping people see their own and their partner's ideal sexual script with a new perspective may help them move toward better alignment of ideal scripts and performance scripts.

*Turning Art into Data*

Other studies have delved into the preferred duration of intercourse and foreplay specifically (Hunt, 1974; Kinsey et al., 1948, 1953; Laumann et al., 1994) or the duration of their last sexual event in its entirety (Denney et al., 1984), but relatively little study has gone into detailed analysis of sexual activity, order, and duration. According to Laumann and colleagues, "Studying scripts directly is difficult since it requires detailed data not only on what activities occur during a sexual encounter but also on the order in which those activities

occur" (Laumann et al., 1994, p. 7).

Using pieces of art created as a method of self-reflection, we sought to investigate whether the creative representations in the GSP could also yield qualitative and quantitative data about participants' sexual behavior and desires.

## Analysis Strategy

First, it was clear that people used a tremendous diversity of phrases and words to describe activities, and we were curious about whether some types of activity would show more diversity of phrasing than others. Previous studies have shown that genitalia specifically have a rich variety of slang terms (Allan, 1990), and taboo topics have a strong tendency to generate slang (McArthur, 1992). We predicted that some activities would have more unique phrases used to describe them than others. For some activities, that could be simply due to individual idiosyncrasies being grouped into necessarily broad categories, such as "kink" or "socializing." But we also thought more common or less taboo activities, like kissing, would show less diversity.

Second, we were curious about how demographics such as gender and age would influence overall graph construction as a depiction of a sexual experience. Frederick et al. (2017) found that women's frequency of reaching orgasm was correlated with a higher variety of sexual behaviors, therefore we hypothesized that we would see gender differences in the number of different legend items used, indicating gender-linked preferences for variety. Based on studies that found that women report higher levels of self-disclosure on sexual topics than men (Byers & Demmons, 1999), we hypothesized that women would use more cubes in their graph construction, as an indicator of increased comfort with sexual topics. As for age, we predicted that age might influence overall graph construction (number of cubes used, number of legend items, ratio of sexual:non-sexual activities) and the value placed on vaginal intercourse, perhaps due to a shifting of priorities, gained practice communicating, hormonal changes, or ingrained taboos about sexuality in older people (Mroczek et al., 2013).

Finally, we wanted to know whether certain demographics would emphasize some activities over others in their graphs as a marker of increased value or preference, as denoted by the number of cubes used to represent each activity. To this end, we opted to investigate the emphasis on vaginal intercourse by heterosexual men and women. For many people, vaginal intercourse has a high priority as a sexual activity, as demonstrated by studies that show up to 60% of college students do not feel sex has happened if it is not included (Sanders & Machover Reinisch, 1999). Miller and Byers (2004) found that "men reported a significantly longer ideal duration of intercourse than did their partners" (p. 1). Based on these previous findings, we hypothesized that vaginal intercourse would be emphasized overall by both men and women, and that heterosexual men would use more cubes for vaginal intercourse than heterosexual women. In a similar vein, one study found that women placed an overall greater importance than did men on five pre- and post-coital items measured (Hughes & Kruger, 2010), so we hypothesized that we would find gender

correlated with the ratio of sexual:non-sexual legend items.

## Methods

### The Installation

The GSP has been installed in a variety of places, including art festivals, galleries, universities, kink events, conferences, workshops, raves, and public parks. The installation includes graph-making materials: cubes, sticker dots, markers and pens, and a template with brief instructions (Supplemental File 2). The installation also includes a display of 100 to 300, 5"x7" prints of graphs made by previous participants, curated for each event by the artist to show the diversity of graphs. Participants are instructed to include demographic information on their graph, including age, gender, and sexual orientation, though no specific format for these data are supplied to participants. No other information about participants is requested due to its limitations as a public art project as opposed to a formal research project. A request to share a picture of their creation with the GSP is posted, along with a statement that sharing the picture with the artist constitutes permission to use the image in any and all media associated with the GSP (see discussion of anonymity in Strengths and Limitations). Over a period of 4 years, 565 graphs were collected.

An online tool enables participants to create a graph online however, these graphs were not included in our study.

### Coding Methods

To begin our analysis, we first placed all graphs into categories of graph-type based on their overall layouts, subject matter, or graphing strategy. We chose to use only graphs of the following graph-types: simple activities, contemporaneous activities, and mosaic (description and examples provided in Supplemental File 1). We excluded graphs from the following graph-types in order to simplify the dataset: longitudinal graphs that related change over an extended period of time, graphs depicting sex with multiple people or solitary sex, graphs that depicted some other aspect of a sexual experience besides simply the activities, graphs that had obscure meaning or were otherwise uninterpretable, and graphs where the cubes were arranged to make a picture. This left 292 graphs. We created a preliminary set of 62 "Activity Categories" (ACs, denoted in italics in this paper) based on a rough overview.

The 292 graphs were distributed to five data entry assistants, who first recorded the legend items used verbatim, the demographics, and numbers of cubes used for each legend item. Regarding the demographics, standardized demographic labels were not provided to participants, in order to allow them to self-identify however they wished. Graphs coded as woman-generated were ones that included any of the following indicators in the demographics space provided: F, female, woman, W, ♀, and lesbian. Terms also coded as women but occurring in fewer than 1% of graphs included queen, femme, fem, goddess, FT, TF, or TL. Graphs coded as generated by a man were ones that included any of the following indicators: M, male, man, and homo; and in less than 1% of the graphs, ♀→♂, transmasc, transguy. Only three out of 292 graphs indicated non-binary or agender. Orientation demographics used, and how they were indicated included: Asexual (Asexual or ace),

Bisexual (B, Bi, or bisexual), Heterosexual (H, S, St8, Het, St, Str, or heterosexual), Lesbian (WG, L, TL, lesbian), Gay (G, homo, gay), and Queer (Q, queer, heteroflexible, pansexual, questioning).

We refined the ACs into 67 categories, adding ones we determined were necessary. We redistributed the graphs to the coders to determine to which AC each legend item in a graph belonged (ultimately, JB accomplished the initial coding on approximately 70% of the graphs). During this process, graphs were assigned a confidence rating as follows:

1 - Too many questions and ambiguity. Did not code at all.
2 - Attempted coding, but encountered ambiguity.
3 - Coded all legend items, but noted questions and judgment calls.
4 - Pretty confident, one judgment call with moderate certainty.
5 - Very confident, easy to code.

After finishing the initial round of coding, graphs rated as 3 and 4 were reviewed and discussed by the authors. Some graphs rated as 3 were updated to 4, or down-graded. We then updated the ACs based on observations during coding. For example, we created a new AC for the use of the word *Foreplay* due to its ubiquitous use, coupled with its ambiguity. As we began the analysis, we determined that our attempt to group sexual activities by actions performed upon either male or female genitalia was flawed: it required too many assumptions about the identities or anatomies of the participant or their referenced partner, such as "women have vaginas" or "partners of self-identified straight women have penises" which is not always true. For example, "fingers me to you" on the graph of a self-identified straight man was originally coded as the AC *Manual Stimulation Of Vulva, Clitoris Or Vagina By The Graph-maker.* We ultimately opted to collapse all ACs involving genital stimulation into either simply *Oral Genital Stimulation* or *Manual Genital Stimulation*. We also consolidated ACs that differentiated between the participant performing an action and the participant receiving an action, also due to levels of ambiguity. Other ACs consolidated due to ambiguity were *Manual Anal Stimulatio*n and *Anal Penetration* (for example "butt stuff") and *Sex Toy Use* and *Sex Toy Penetration*. Using these 36 modified ACs, JB updated all graph coding and made the final determination of all Activity Category assignments. We have addressed the inherent bias of this approach in Strengths and Limitations.

For quantitative analysis of AC use by participants, we only used the 276 graphs with a confidence rating of 4 or 5. An example of a coded graph is provided in Figure 2.

*Figure 2*

*Sample graph coding.*
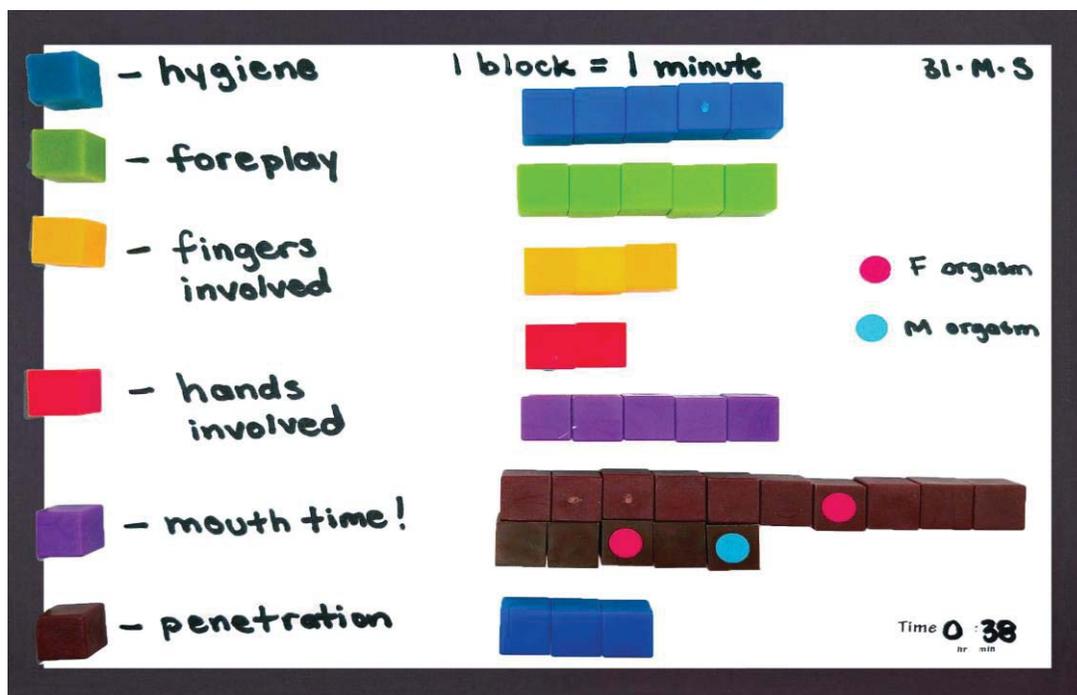


*Notes.* This graph was coded as follows:
- "Hygiene" - 8 cubes - *Maintenance*
- "Foreplay" - 5 cubes - *Foreplay*
- "Fingers involved" and "hands involved" - 5 cubes - *Manual Stimulation of Genitals*
- "Mouth time!" - 5 cubes - *Oral Stimulation of Genitals*
  - Interpreted to be oral/genital stimulation.
- "Penetration" - 15 cubes - *Vaginal Intercourse*
  - We made the assumption that "penetration" meant vaginal intercourse in the graphs of heterosexual participants.
- "F orgasm" and "M orgasm" - 3 dots - *Climax*

After coding the graphs, we analyzed the variety of legend items used to represent various activities. In addition to these observations, we also performed statistical analyses of some of the data. Prism (GraphPad, San Diego, CA) software was used to calculate descriptive statistics, perform statistical analyses, and visualize data.

**Results**

*Installation Event*

The installation was run 67 times at 18 locations; at 49 of these, JB was facilitating and observing. At events where JB was in attendance, it was apparent that the installation attracted attention from people who wanted to look through the graphs made by other people. Based on JB's observations, approximately 10% of the people that stopped to look went on to

make their own graph. Participants tended to spend 10 to 15 minutes making their graph. Less than 10% of participants chose not to share their graph with the GSP, based on estimation of the collection and disposal of discarded templates of graphs not shared via text message (the primary method of collection; phone numbers were destroyed). Anecdotally, when questioned by the artist, participants expressed eagerness to share their graph with a partner and talk about it, a key goal of the GSP. Demographics of participants are listed in Table 1.

*Table 1: Participant Demographics*

| Gender | Percent of Graphs | Orientation | Percent of Graphs |
|---|---|---|---|
| Woman | 61.3% | Heterosexual | 39.4% |
| Man | 26.4% | Not Determined | 26.4% |
| Not Determined | 8.90% | Bi-sexual | 16.1% |
| Non-Binary | 2.05% | Queer | 9.6% |
| Genderfluid | 0.68% | Gay | 4.5% |
| Agender | 0.68% | Lesbian | 3.1% |
| | | Asexual | 1.0% |

[a] Data are from 292 graphs with coder confidence rating 1-5

**Legend Item Variety**

We performed an initial qualitative analysis of the legend items used by participants for all 292 codable graphs. Due to the creative use of language on the part of participants, grouping legend items into ACs required some amount of interpretation by the coders, based on cultural knowledge and the limited information available in the graphs. For example, the AC *Vaginal Intercourse* was indicated by 144 distinct phrases, including "pound me with intensity," "be inside you," "pussy sex," "rough doggy," "doing it," "him on top," and "actual sex." Although some of these terms could conceivably be referring to AC *Anal* or something else, they were placed into *Vaginal Intercourse* based on contextual factors, such as their use in a self-identified heterosexual person's graph, typical language usage, and that

they did not specify anal. We have addressed the limitations of this approach below in Strengths and Limitations.

On the initial data set of 292 graphs, some of the ACs we created showed more term variability than others, with a high number of unique legend items compared to the percent of coded graphs containing that AC (Table 2). Selected examples of high variability include:

- *BDSM/Kink* (91 phrases on 72 graphs): being denied, dominance, cutting, flogging, hair pull, I'm going to choke you, kinky play, punishment, puppy play, reward, spanking, submission, water sports, slapping
- *Social Engagement, Pre-sexual* (131 terms on 111 graphs): artistic endeavors, flirting, tell me about your day, dancing, chores, dirty text, chilling, drinks, emotional relating, event outing, hang out, dinner, try something new
- *Scene Setting* (18 phrases on 13 graphs): children stay asleep, creating a magical container, heating of bedroom, kicking the cat out of the bed, nice smells and music, setting mood, music, ritual setting
- *Emotions or Thoughts* (71 phrases on 54 graphs): yeah fuck it I got time, awkward waiting, closeness, confident joy, desire, emotional sparks, do I maybe, the bond, tantric connection, verbal validation, sigh, playfulness
- *Negotiation* (25 phrases on 20 graphs): wanna do it?, agreement on parameters, consent, debrief/evaluate, guilted into foreplay, safe word, seduction, you can put it there, you?, boundary setting, let's do it!

Other ACs had a low degree of variability of terms, such as *Climax, Kiss & Makeout,* and *Physical Bonding Activities* (Table 2).

*Table 2.*

*Number and Percent of Activity Categories in Graphs and Numbers of Unique Legend Items*

| Activity Category | Sexual or Non-sexual | Percent of Graphs with Code in this AC[a] | Number of Graphs with Code in this AC[a] | Number of Unique Legend Items for this AC[b] |
|---|---|---|---|---|
| Kissing & Making Out | Sexual | 81.9 | 226 | 45 |
| Vaginal Intercourse | Sexual | 81.2 | 224 | 145 |
| Oral Stimulation of Genitals | Sexual | 71 | 196 | 133 |
| Climax | Sexual | 68.5 | 189 | 72 |
| General Body Touching | Sexual | 57.2 | 158 | 127 |
| Physical Bonding Activities Post-sexual | Non-sexual | 47.8 | 132 | 63 |
| Manual Stimulation of Genitals | Sexual | 41.3 | 114 | 92 |
| Social Interaction Pre-Sexual | Non-sexual | 40.2 | 111 | 131 |
| BDSM & Kink | Sexual | 26.1 | 72 | 91 |
| Maintenance & Hygiene | Non-sexual | 25 | 69 | 49 |
| Physical Bonding Activities Pre-sexual | Non-sexual | 23.6 | 65 | 21 |
| Social Interaction Post-sexual | Non-sexual | 22.8 | 63 | 36 |
| Emotions, Thoughts, States of Being | Ambiguous | 19.6 | 54 | 71 |
| Oral Stimulation General Body Areas | Sexual | 18.1 | 50 | 31 |
| Anal Stimulation & Intercourse | Sexual | 17.4 | 48 | 33 |
| Undress/dress | Ambiguous | 15.9 | 44 | 30 |
| Social Interaction Undefined Order | Non-sexual | 15.6 | 43 | 29 |
| Foreplay - use of specific word | Sexual | 14.1 | 39 | 8 |
| Other - Sexual | Sexual | 14.1 | 39 | 35 |
| Physical Bonding Activities Undef Order | Non-sexual | 13 | 36 | 5 |
| Sexual Vocalization | Sexual | 12.7 | 35 | 21 |
| Nipple, Breast, Chest Stimulation | Sexual | 10.9 | 30 | 25 |
| Sex Toy Genital or Anal Stimulation | Sexual | 10.5 | 29 | 26 |

| | | | | |
|---|---|---|---|---|
| Eye-gazing | Ambiguous | 8 | 22 | 14 |
| Stimulation Undefined | Sexual | 8 | 22 | 21 |
| Negotiation | Non-sexual | 7.2 | 20 | 25 |
| Other - Non-sexual or Unknown | Non-sexual | 7.2 | 20 | 30 |
| Proximity Change | Non-sexual | 5.4 | 15 | 19 |
| Scene Setting | Non-sexual | 4.7 | 13 | 18 |
| Self-Stimulation | Sexual | 4.7 | 13 | 4 |
| Genital to Body Stimulation | Sexual | 2.9 | 8 | 6 |
| Simultaneous Stimulation | Sexual | 2.9 | 8 | 5 |
| Drug use | Non-sexual | 2.5 | 7 | 10 |
| Media Consumption, Porn and other | Sexual | 2.5 | 7 | 7 |
| Genital to Genital Stimulation | Sexual | 2.2 | 6 | 4 |

[a] Data is from 276 graphs with coder confidence rating 4-5
[b] Data is from 292 graphs with coder confidence rating 1-5

*Cube Usage by Gender and Age*

We were curious as to whether demographics such as gender and age would influence overall graph construction. For comparisons between two genders, two-tailed unpaired Student's *t*-tests (alpha = .05) were performed. When the total number of cubes used to make graphs was compared between men and women, we found that women used significantly more cubes in their graphs than men, in support of our prediction. Women used an average of 38.3 cubes (range: 9-112; *SD*: 20.25) compared to an average of 31.7 cubes for men (range: 6-116; *SD*: 18.13) (Figure 3A), $t(254) = 2.46$, $p = .014$.

Women also used significantly more legend items per graph (Figure 3B), with a mean of 8.23 legend items (range: 4-20; *SD*: 2.82) compared to 6.97 for men (range: 2-13; *SD*: 2.28), $t(241) = 3.34$, $p = .001$. This finding supports our hypothesis and aligns with the study by Frederick et al. (2017), which found that women's frequency of reaching orgasm was correlated with a higher variety of sexual behaviors.

We also calculated the ratio of the total cubes in each graph used for sexual:non-sexual ACs, by both men and women, but did not find any significant difference in this ratio between women (mean ratio: 4.60 sexual to non-sexual cubes, *SD*: 3.81) and men (mean: 4.14; *SD*: 4.03), $t(183) = 0.72$, $p = .473$ (Figure 3C). The broad range of variability however, suggests gender was not the determining factor in whether a person considers a sexual

experience to begin only when the clothes come off, or when it began hours ago with dinner and a movie, or a sexy text at lunch time.

*Figure 3.*

*Gender influences some aspects of overall graph construction.*
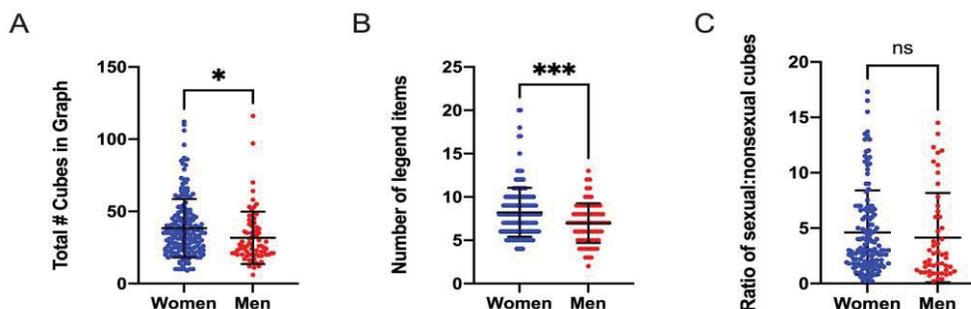


*Notes.* In all panels, each data point represents an individual graph. The internal line indicates the mean and bars represent standard deviation. (A) The total number of cubes in each individual graph was counted and compared between men and women. (B) The number of unique legend items for each graph was determined and compared between men and women. (C) ACs were coded as either sexual or non-sexual, and the ratio of cubes used for each group of ACs was calculated. $n = 276$ graphs; ns: not significant, $* p < .05$; $*** p = .001$

To investigate whether age influenced various graph characteristics, simple linear regressions were performed. There was no significant correlation between age and any of the dependent variables, including the total number of cubes used, $F(1, 250) = 1.26$, $p = .264$, $R^2 = 0.005$, $\beta = -0.124$, the number of legend items, $F(1, 250) = 1.68$, $p = .197$, $R^2 = 0.007$, $\beta = -0.0190$, the ratio of sexual:non-sexual cubes, $F(1, 192) = 0.03$, $p = .866$, $R^2 = 0.0002$, $\beta = -0.00391$, or the proportion of cubes used for vaginal intercourse, $F(1, 250) = 2.73$, $p = .0997$, $R^2 = 0.01$, $\beta = -0.116$.

*Kissing, Cuddling, and Intercourse*

In support of our third hypothesis that vaginal intercourse would be highly valued, the AC *Vaginal Intercourse* was the second most frequently mentioned in all coded graphs, just after *Kissing and Making Out* (Table 2). This is likely due to the high proportion of heterosexual men and women compared to non-heterosexual participants. But do heterosexual men and women value it to different degrees? Unexpectedly, we found that gender did not have an effect on the proportion of the cubes used for intercourse, $t(103) = 0.53$, $p = .597$ (Figure 4A). However, heterosexual women did use significantly larger proportions of cubes than men to indicate kissing, $t(103) = 2.50$, $p = .014$ or cuddling, $t(103) = 2.34$, $p = .021$ (Figures 4B, 4C), suggesting they place a higher value on those activities than do men.

*Figure 4*

*Some activities are emphasized more by heterosexual men or women.*
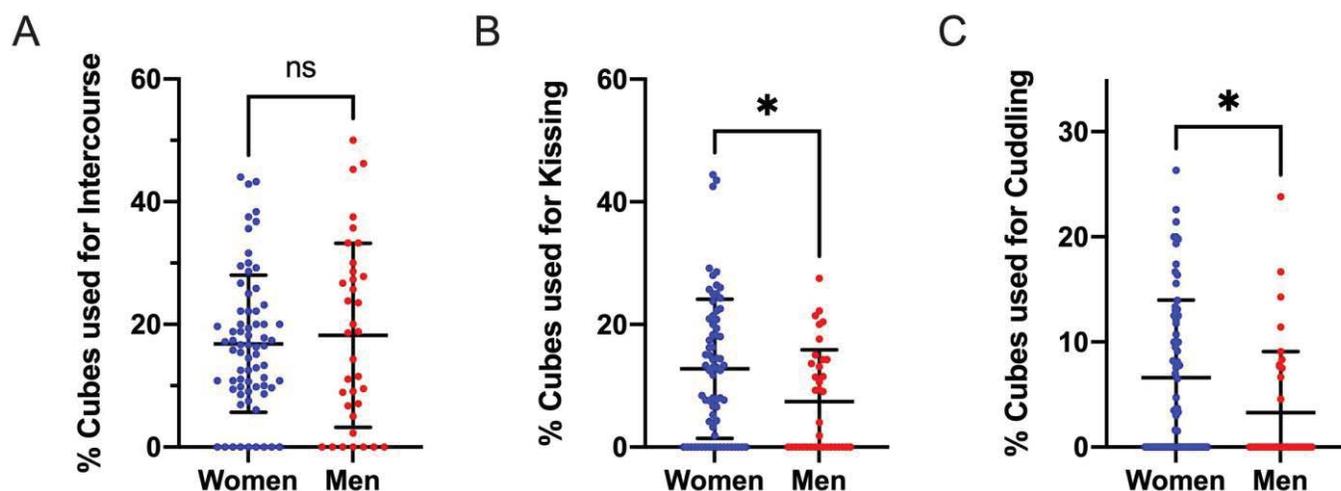


*Notes.* The proportions of cubes used for (A) intercourse, (B) kissing, or (C) cuddling were compared between heterosexual women and men. Each point represents the percentage of all cubes used for that activity in a single graph. Heterosexual women used a significantly higher percentage of cubes for kissing and cuddling in their graphs. In all plots, the internal black line indicates the mean, and error bars indicate the standard deviation. $n = 276$ graphs, ns: not significant; * $p < .05$.

## Discussion

The GSP installation has provided a platform for hundreds of people to explore their sexual desires and communicate them to partners. Although the GSP was not originally designed for the purposes of quantitative research, our preliminary study supports the potential for use of this technique for sexuality research, particularly with modifications to address the limitations outlined below.

Analysis of the graphs showed that people used diverse and varied legend items. This intriguing finding points to future studies into how people conceptualize and name sexual activity and whether term variation correlates with taboo activities. We found clear differences in the relative proportions of ACs. Although negligible gender differences showed up in the proportion of cubes used to indicate vaginal intercourse compared with other activities in heterosexual participants, women used more cubes than men to represent kissing and cuddling. Women showed more variety of desired activities, but men and women had a similar ratio of sexual to non-sexual activities as a part of the sexual experience. That gender does not account for a significant portion of the wide variation in proportional preferences of intercourse highlights the importance of communication about one's particular preferences and buttresses the usefulness of this tool for sexual communication, since relying

on gender stereotypes is ineffective, per Miller and Byers (2004).

Similarly, the fact that we found no correlation between age and the ratio of sexual:non-sexual cubes, the proportion of cubes used for vaginal intercourse, or the number of legend items has implications about making assumptions about sexual preferences based on age. Future studies could reveal if the same would be found for other demographics like orientation, race, and disability.

Though coding for activity order was outside the scope of this initial effort, there is potential for the GSP to be used in studies of preferred order of sexual activities, which may give more insight into people's preferences and how well their ideal scripts align with their performative scripts. With a larger sample size that includes participants of more varied demographics, additional questions can be answered regarding the proportion of value that people give to various activities, especially the relative representation of various activities by demographic. Furthermore, encouraging participation by people from marginalized communities and minority sexualities will ensure that their experiences are also included and represented in the dataset.

## Strengths and Limitations

The GSP provides a tool for participants to explore their sexuality and communicate with others about sexual preferences. Anecdotal observations by the artist at installation events seem to support the conjecture that graph creation has potential value as a conversation aid around sexual topics. Participants were encouraged to create their graphs in whatever way was most meaningful to them. The artist felt that this flexibility was important for participants to get the maximum benefit of personal introspection - it was more important that their creation was meaningful to themselves than that it was meaningful to others. However, the open-ended nature of the installation resulted in limitations which made coding and analysis challenging. We outline some of these limitations in Table 3 and propose ways these could be addressed and improved in future studies designed specifically for data gathering.

*Table 3*

*Project Limitations, Consequences, and Suggested Solutions*

| Limitation | Consequence | Future Solutions |
|---|---|---|
| Ambiguity in legend items | High degree of interpretation required by coder | Post-participation interviews with participants to clarify intention and meaning |
| Ambiguity in meaning of cube: time, intensity, pleasure, or something else | Counted only numeric number of cubes | Post-participation interviews with participants to clarify intention and meaning |
| Varied/incomplete demographic data | Some graphs missing some or all demographic data<br><br>Ambiguity with labels used<br><br>No data on race/ethnicity, disability, and other key aspects of identity | Post-participation interviews with participants to clarify demographics<br><br>Request additional demographic data from participants |
| Poor representation of some demographic groups | Current analysis limited to self-identified men and women; heterosexual people | Recruit underrepresented demographic groups in future installations |
| Coding primarily undertaken by one author | Unavoidable bias in interpretation of graphs | Each graph coded by multiple people, with areas of disagreement identified and clarified |
| Graphs made in context of a public art installation event | People may have been influenced by display of graphs at installation, or other environmental factors such as lack of privacy | Have people make graphs in a controlled environment |

In addition, some demographic characteristics such as race/ethnicity and disability were not requested from participants, and therefore the dataset does not allow for analysis of these groups. These data will be important to collect at future installations, especially as the intersection of sexuality with race and/or disability are topics that have historically received far too little attention. We plan to hold future installations at events specifically geared toward diverse populations in order to collect data that is more fully representative of all identities and lived experiences.

Due to the GSP's original intent as an art installation, not a research study, informed consent was not possible. However, names and other personal information was not collected, and the phone numbers attached to the graphs in the collection process were destroyed, ensuring the anonymity and the separation of data from identifiable individuals.

*Supporting Positive Sexuality*

The GSP embodies multiple dimensions of positive sexuality (Williams, Prior, & Vincent 2020; Williams, Thomas, Prior, & Walters, 2015). It promotes open, honest communication by asking participants to express their sexual desires in creative format. The invitation to make a graph of a "good sexual experience" reinforces sexuality as healthy, positive, and life-giving. The open-ended nature of the installation allows participants to define their unique sexuality in whatever way they see fit. The collection of graphs showcases the diversity of human sexual behavior. Furthermore, our analysis of these graphs adds a sex-positive investigation to a growing body of arts-based research.

*Tool for Self-reflection, Communication, Therapy*

More research is needed into the GSP's efficacy as a tool for self-reflection and communication between partners. This could be accomplished through a controlled study involving graph creation combined with qualitative follow-up interviews for graph interpretation, and to understand participants' perceptions and experience of the making of graphs, as well as their experience using their graph for communication with a partner.

The GSP's value as a therapeutic tool in individual sessions is beginning to be realized by therapists using a modified version of the installation materials to help their client reflect on their sexual script. Social stigma, which may inhibit explicit talk about what happens in a sexual experience, creates an impediment in understanding what sexual script a client is operating under in order to move forward in the therapeutic process. This tool may help create a new pathway for therapeutic work.

Concurrent with these potentialities, the GSP as an interactive installation and workshop activity will continue to encourage sexual self-awareness and communication, by creating a playful and de-stigmatizing social/sexual public space.

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