# Gender Differences in Parents' Assessment of Language Development 

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# GENDER DIFFERENCES IN PARENTS' ASSESSMENT OF LANGUAGE DEVELOPMENT 

by<br>MICHELLE LACROIX

## HONORS THESIS

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#### Abstract

This study aims to determine if there is a statistically significant difference between genders in the reporting of their child's communication abilities. Possible variances between men and women are important to consider because parent-based questionnaires are often used to help identify children who are in need and eligible for the services of a speech-language pathologist. Literature surrounding parental stereotypes and the impact of the parent in development, as well as stigma in relation to the need for speech therapy services is explored. A survey based off of the Ages and Stages Questionnaire, Third Edition was distributed to parents of children between 24 and 36 months old. While the results of the survey did not show a statistically significant difference between men and women, overarching patterns were found within the data. The most notable trends showed that males consistently reported higher average scores for expressive language-based questions while females reported scores either the same or higher than males for all receptive language-based questions. However, because no statistically difference was found it can be concluded that having only one parent take a questionnaire would not have a large impact on the overall results and subsequent recommendations of a speech-language pathologist.


Keywords: language development, language assessment, gender differences

## Gender Differences in Parents' Assessment of Language Development

Introduction

Both the role of the parent and stigma surrounding speech-language issues play an important part in how people view and interact with speech and language development. Having different roles and outlooks can influence the outcomes of any given individual in a positive or negative manner. Particularly for parents and caregivers, it is essential to be aware of their part in their child's speech-language development and to feel comfortable in seeking help if necessary.

In this literature review, parental stereotypes and the impact of the parent in development, as well as stigma in relation to the need for speech therapy services will be explored. Articles focusing on different parenting roles as well as the particular ways that parents may affect their child's speech-language development will be examined. The idea of stigma and the role it plays in the individual and the family of those with speech-language issues will also be discussed.

## Gender Differences in Parenting

When examining parenting roles, Stephens (2009) focuses mainly on genders and the interactional differences between mothers and fathers with their children. In her work, Stephens discusses the key characteristics of stereotypical masculinity and femininity. Masculinity is defined as being "independent, assertive and aggressive" while femininity is contrastingly viewed as "nurturing, sensitive and emotional" (as cited in Stephens, 2009, p. 2). Such descriptions have led to the overarching belief that women have certain traits that make them better at taking care of children. Through her study surveying Texas State University undergraduate students, Stephens concluded that mothers did, on average,
spend more time with their children in general than fathers did, and were seen as more overprotective and caring. Such conclusions indicate that mothers, being more intimately involved in the upbringing of their children, may currently have a larger and more engaged role than fathers in their child's speech-language development. In other words, women may be more compelled to foster optimal development in such areas, feeling as though it is part of their traditional "motherly role". However, Stephens also concluded that it is likely that parenting roles will become more equally divided in the future. She claims that our society is making its way toward the ideal of co-parenting.

## Parental Role in Language Development

Tamis-LeMonda, Luo and Song (2014) examine the role of parents in speechlanguage development and show that all parents play a key role in facilitating the lexical, grammatical, pragmatic and literacy development of their child. This is done through any daily social interaction, from play to eating a meal or even simply getting dressed. A key aspect of such engagement is responsiveness with the child's communication skills. The authors also emphasize four main features of parents' speech, identifying them as being "foundational" to a child's development. They are as follows: "language that is diverse in word types and communicative functions; language that is contingently responsive to infants' exploratory and communicative overtures; language that is coupled with behavioral cues that saliently mark references; and language that is grammatically complex and attuned to children's growing language skills" (Tamis-LeMonda et al., 2014, p. 102). Such speech can come from either parent, irrespective of gender, and will encourage more positive outcomes for the child.

Sheridan, Knoche, Kupzyk, Edwards and Marvin (2011) reiterate the fact that
parental involvement can be linked to language and literacy development, particularly within preschoolers. In their study examining the effects of parent engagement on early language and literacy, the authors conclude that increased parental involvement in general has a positive impact on a child's speech-language outcomes as well as their readiness for a school setting. The study looked specifically at the "Getting Ready" approach, which in part guides parents to engage in warm and responsive interactions, support their children's autonomy and participate in their child's learning.

## Impact of Parenting Style

Fitzgerald, Hadley and Rispoli (2013) look more specifically at parenting styles and their influence on grammatical input. The researchers discussed how the nature and purpose for interaction between parents and children can vary widely. While some parents are interested in creating a conversation between themselves and their child, others may interact mainly to direct the behavior of their child. It was reported that this more directive speech led to poorer outcomes in children's grammatical development, while more conversational interactions benefitted children. The researchers examined parent interaction styles based on verbal communication having four main functions: direct directive, indirect directive, interpersonal-focused directive and other-focused directive. Their data was based off of the proportion of positive, unambiguous evidence out of all verb forms-what they referred to as input informativeness. Through their study, it was also determined that the use of direct directives was negatively related to input informativeness and other-focused descriptives were positively related, while indirect directives and interpersonal-focused descriptives had no relation. Such results support the idea that parenting styles focusing on more expansive, conversational speech better
support speech-language development.

## Views of Speech and Language Development

When examining how both parents and speech language pathologists view speech and language development, Marshall, Goldbart and Phillips (2007) determine specific internal and external factors that each group believes have a significant influence on a child's language development. Parents believe that their child's hearing, gender and personality have a large impact on development. They also recognize that they themselves, as parents, play a significant role, and cited other individuals that are regularly around the child as well as educational television and videos as positive sources for language development. Speech-language pathologists also spoke of the importance of good health along with physical and sensory skills, as well as incidental learning from those around the child. However, their main focus was on creating an optimal environment-specifically with positive parent-child relationships, emotional and physical security and childfocused/sensitive input. They also emphasized the importance of creating opportunities for the child's communication.

Marshall, Goldbart and Phillips also look at views more specifically on speechlanguage delay. They reported that speech-language pathologists' views on language delay tended to vary widely, but did not focus on critiquing parents' actions or blaming parents for their child's language difficulties. However, when looking for possible causes for their child's delay, multiple parents often questioned their own behavior as a possible source. This internal feeling of having done something wrong leads to the idea of stigma, which both children and parents face when an individual is diagnosed with a speech or language issue.

## Impact of Stigma

Kleinman and Hall-Clifford (2009) describe stigma as a social, cultural and moral process. They discuss stigma as being based around the social construction of identity. During such construction individuals are separated into "normal" and "discredited" groups". In the case of children with speech-language issues, their actions and diagnoses allow for a separation from their peers whose development is following a standardized norm. In doing so, such children are labeled as "others", which can have both a social and psychological impact on their lives. From a sociological perspective, this stigma also leads to institutional disadvantages for those that are characterized as part of the stigmatized group.

Taylor (2013) describes stigma and prejudice specifically in terms of health and wellness. Although Taylor's personal experience is with individuals diagnosed with epilepsy, his findings can be generalized to any person with "highly noticeable" issues that must be officially identified and treated by a health professional. Similar to Kleinman and Hill-Clifford, he acknowledges the impact that categorizing humans can have on an individual and a society. However, he pinpoints official diagnosis as one such categorization.

Taylor further explains that stigma provides the grouping from which assumptions can be made based on established stereotypes, allowing for prejudice. He describes that in the case of the individual, stigma can be felt as a general "inner sense of unease", causing negative internal views within the person themself. However, it can also take on a physical form through mocking, bullying or denial of resources and opportunities. Taylor states that stigma can be felt in personal terms, such as not being "the Me I want to be", as well as in
terms of other's views, such as not being "the child we wanted to have". Within speechlanguage pathology, the negative connotations associated with stigma and non-normative conditions can also have an impact even before official diagnoses. Simply the knowledge of the negative effect of the applied stigma may deter parents and individuals from seeking the help of a speech-language pathologist. If an issue does not severely impact the individual's quality of life, the negatives associated with not receiving treatment for their difficulties may not outweigh the negatives of being labeled and the subsequent stigmatization.

## Stigma and Stuttering

Stigmatization in the realm of speech-language difficulties has even been broken down and made measurable for individuals with a stutter during adulthood in research by Boyle (2013) developing and evaluating the Self-Stigma of Stuttering Scale (4S). The finalized scale is used to measure different levels of internalized stigma and was designed to help clinicians track the attitudes of their clients. 4 S focuses on assessing three major components of self-stigma. They are as follows: stereotype awareness (e.g. "I think the public believes that most people who stutter are insecure"), stereotype agreement (e.g. "I believe that most people who stutter are insecure") and self-concurrence (e.g. "Because I stutter, I feel more insecure than people who don't stutter). While only 19\% of participants in the study showed high stereotype agreement, 86\% demonstrated high stereotype awareness and 39\% demonstrated high self-concurrence. Such results demonstrate the influence that stigma can have on the quality of life and well-being of speech therapy clients.

## Summary

Overall, parenting roles and the stigma of having a speech-language impairment play a large role in the field of speech-language pathology. Fostering optimal development, including that of speech and language, is often seen as part of a "mother's job" due to gender norms and the stereotyping of parental traits. However, multiple studies show that increased parental involvement as a whole has a positive impact on speech-language development and future outcomes for children. Even so, stigma has become attached to aspects of speech-language development that do not follow the normative pattern. Such stigma may lead to a negative outlook on the individual in need well as their family. Such impacts may lead to undesirable views of speech therapy services and may deter individuals from seeking help right away.

Conclusions from the literature imply that many individuals may view speechlanguage development in different manners. This is important to consider because speechlanguage pathologists frequently use a variety of assessments to evaluate an individual's strengths and areas for improvement. In particular, these are often used as to identify those who are in need and eligible for therapy services. In the case of young clients these assessments frequently include questionnaires completed by the child's parents or caregivers. Following our conclusions, one may assume that when reporting their child's language abilities, results may differ depending on the parent's specific circumstance and views on the stigma and topic of speech therapy. In the following study, we will look specifically into variations between males and females, determining if there is a statistically significant difference between genders in the reporting of their child's communication abilities. This is an important factor to test in order to determine the validity of such data when reviewing a child's case and determining the best course of action for their future.

## Method

## Participants

Participants in this study included male and female parents with children between the ages of 24 to 36 months. The survey was distributed in an online setting using the University of New Hampshire's web-based survey and data analysis tool, Qualtrics Survey Research Suite (or Qualtrics). Participants for the survey were recruited in person, as well as through communications via the social media platform of Facebook. Therefore, results are based off of a convenience sampling. The final sample consisted of 11 women and six men. Within this sample were five parental sets, or five pairs of participants-each consisting of one male and one female-that were parents of the same child. None of the participants were compensated and all gave their informed consent to be included in the study.

## Materials and Design

A survey was conducted in order to determine if there is a statistically significant difference between genders in the reporting of their child's communication abilities. The survey was based off of Paul H. Brookes Publishing Company's Ages and Stages Questionnaire, Third Edition (or ASQ-3)—a developmental screening system begun by specialists at the University of Oregon's Early Intervention Program with the goal of accurately identifying children who may be at-risk for delays. This questionnaire was chosen for its heavy reliance on parent reporting and ease of use for participants.

The $A S Q$-3 consists of multiple sections, focusing on the areas of communication, gross motor, fine motor, problem solving, and personal-social skills. These specific areas were selected because of their ability to accurately depict a child's development and at the
same time be easily observed by parents or caregivers. Questions were also written with the audience of parents in mind; clear, common language not exceeding a sixth-grade level was used to ensure understanding by individuals from numerous cultural and socioeconomic backgrounds. The questionnaire was informed by numerous areas of knowledge and study including standardized developmental tests, non-standardized tests focused on early development, psychology textbooks, child development research, education and intervention resources, and other literature focused on early developmental milestones (Ages and Stages Questionnaires, 2017).

For our purposes, the survey for this study was based solely off of the "Communication" sections of the $A S Q-3$. The $A S Q-3$ includes specific questionnaires for children ranging from one month old to five and a half years old. However, for this survey multiple questionnaires were combined. This was done in an attempt to create an age range of children large enough to obtain an appropriate number of parental responses. Portions of each questionnaire spanning from 24 months to 36 months were utilized. This age range was chosen because the questionnaires showed a distinct similarity to one another, containing comparable questions about tasks requiring both expressive and receptive language skills. The original questionnaires contained six questions each. The survey for this study was extended to eight questions in order to include as many similar questions as possible without becoming so lengthy as to discourage participation. The final survey can be found in Appendix A.

Questions on the ASQ-3 are typically answered using the Likert scale responses of "Yes", "Sometimes" or "Not yet". For this study the options were expanded to "Always", "Often", "Sometimes", "Seldom" and "Not yet". This was done to permit slightly greater
variation between responses, allowing for more specific pinpointing of differences. When analyzing the results of the survey, each response was translated into a numeric amount (e.g. "Always" $=5$ and "Not yet" $=1$ ).

## Guidelines

Directions for the survey were also altered from the original questionnaires. The $A S Q-3$ instructs parents to ask their child questions and direct them in tasks and activities throughout the questionnaire. However, because this study is looking to determine if there is a difference between genders in what they report as their child's abilities, parents were instead instructed to base their responses off of previous interactions and observations of their child. Furthermore, parents were asked to not consult one another on their answers to prevent one gender from influencing the other. It was requested that both parents of each child complete the survey if possible, in order to compare differences within couples as well as between genders as a whole. Guidelines also stated that the child should be between 24 and 36 months old at the time of the survey, as previously discussed. Before taking the survey, parents were also asked which gender they identify as (either male or female) and the first name and last initial of their child. Identifying information concerning each child was only used to match together parental sets; such information was removed after parents were labeled as pairs.

## Results

## Description of Response Data

As previously mentioned, answers to the survey questions were recorded on a Likert scale of "Always", "Often", "Sometimes", "Seldom" and "Not yet". Original responses from each participant can be found in Appendix B. When analyzing the data, each response
was then translated into a numerical amount as follows: "Always"=5, "Often"=4, "Sometimes" $=3$, "Seldom" $=2$ and "Not Yet" $=1$. Scores reported for each question were then averaged together by gender.

Question one, "Does your child correctly use words like 'me', 'I', 'mine' and 'you'?" yielded an average score of 3.91 from women and 4.17 from men. Question two, "Without giving them clues by pointing or using gestures, can your child correctly carry out directions such as: ‘Close the door', 'Get your book', 'Take my hand" received an average score of 4.64 from women and 4.50 from men. Question three, "Does your child say two or three words that represent different ideas together, such as 'See dog' or 'Mommy come home'?" produced an average score of 4.20 from women and 4.50 from men. Question four, "When you ask your child to point to their nose, eyes, feet, ears, etc., do they do so correctly?" yielded the highest average scores, with 4.73 from women and 4.5 from men. Question five, "Does your child make sentences that are three to four words long?" received an average score of 3.82 from women and 4.00 from men. Question six, "Without giving them clues by pointing or using gestures, can your child correctly carry out directions such as: 'Put the book on the table', 'Put the shoes under the chair' produced the same average score of 4.00 from both women and men. Question seven, "When you ask, 'What is your last name?', does your child respond correctly?" yielded the lowest average scores, with 1.73 from women and 1.83 from men. Question eight, "When looking at a picture book, does your child tell you what is happening or what action is taking place in the picture (for example, 'barking', 'running', 'eating' or 'crying')?" was the final question of the survey and received an average score of 3.36 from women and 3.67 from men. Detailed results accompanied by a graph of the data can be found in Appendix C.

These overall responses showed no significant difference between genders on any of the survey questions. The largest difference between the averages for any given question was only 0.31 , found in question eight. However, when looking more closely within the data, overarching patterns emerged.

## Differences Between Genders

When looking at the individual questions on the survey, each can be categorized as pertaining to either expressive or receptive language skills. The American Speech-Language-Hearing Association (or ASHA) describes the use of expressive language as, "sharing thoughts, ideas, and feelings completely," while receptive language is used for "understanding others" (2017). Questions one, three, five, seven and eight all dealt with expressive language while questions two, four and six dealt with receptive language.

Expressive language-based question pattern. By separating the survey into these two distinct categories, we were able to see that men consistently reported higher average scores for expressive language-based questions. For question one, men gave an average score of 4.17 as compared to the women's average score of 3.91. For question three, men reported an average score of 4.5 while women reported an average score of 4.2. For question five, men gave an average score of 4 as compared to the women's average of 3.82. Question seven again yielded the lowest average scores, as well as the smallest difference between scores of expressive language-based questions. Men reported an average score of 1.83 while females reported an average score of 1.73 . Question eight resulted in the largest difference between average scores, with men giving an average score of 3.67 as compared to the women's average of 3.36. Detailed results accompanied by a graph of the data can be found in Appendix D.

Receptive language-based question pattern. When looking solely at the receptive language-based questions, the opposite pattern emerged. Women reported scores either the same or higher than males. For question two, women gave an average score of 4.64 while men gave an average of 4.5. Question four resulted in the largest difference between average scores of receptive language-based questions, with women giving an average score of 4.73 as compared to the men's average of 4.5 . Question six showed no difference, with both women and men reporting an average score of 4.00. Detailed results accompanied by a graph of the data can be found in Appendix E.

Overall gender averages. Further differences were also found when determining the overall average score reported by each gender. In order to determine this, the scores of each participant's questions were first averaged together. After each participant's individual average was calculated, these scores were then averaged together by gender. This resulted in an average overall score of 3.90 reported by males and an average overall score of 3.79 reported by females. Detailed results can be found in Appendix F.

## Differences Between Parental Sets

When looking specifically at sets of individuals both parenting the same child, another general pattern was found. Of the five pairs of parents that participated in the study, four displayed a female parent reporting scores either the same or higher than their male counterpart. Pairs one and three contained a woman giving a higher overall average than the man. Pair one reported a 4.38 average score from the woman and a 4.13 average from the man, while pair three reported a 4.38 average score from the woman and a 4.25 average from the man. Pairs two and five consisted of parents with the same average score as each other. Both parents in pair two gave an average score of 3.00 and both parents in
pair five gave an average score of 4.00 . Only one couple contained a female parent that reported a lower average score than the male parent. This was pair four, with the average score from the woman being 3.5 and the average for the man being 3.75. Detailed results accompanied by a graph of the data can be found in Appendix G.

## Discussion

Although the results of this study do not show a statistically significant difference between genders on any of the survey questions, subtle variations between men and women were still found. The patterns seen within the expressive language-based questions and the receptive-language based questions show a distinct difference between genders in how they respond to specific types of questions. These patterns follow the characteristics of stereotypical masculinity and femininity described by Stephens (2009). They suggest that women may be more perceptive of what their child is feeling and understands inside while men are more perceptive of overt and assertive spoken language.

The total averages of each gender also indicated that males have a slightly higher views of their child's language development than females. However, data found within the parental sets indicated the opposite in four out of five cases. Due to this inconsistency, no generalizations can be made about differences between genders in the survey as a whole.

Based on the conclusions of this study, it is suggested that both parents participate in questionnaires when looking to identify if a child is in need and eligible for therapy services. This could be accomplished by having each parent complete a separate questionnaire or by having parents collaborate and answer the questions together. This would allow for the best overall picture of the potential client's strengths and areas for improvement, as it would include the distinctions observed by each parent. However,
because no statistically difference between the responses of the genders was found, it is still accurate to conclude that only one parent taking the survey would not have a large impact overall.

## Limitations

One of the largest restrictions of this study was the sample. The survey was distributed online and participants were collected by convenience. Therefore, the size of the sample was small—only 17 individuals. Having so few responses may have contributed to the inability to find statistically significant differences between the genders. Within this sample, there was also a lack of equality in terms of gender. Although it was asked that both parents take the survey if possible, not all did. This led to responses from 11 female participants and only six males. This may have impacted the overall averages, as having more female participants allowed for more variation in their individual average scores. Having a greater sample size and more participants that are parents of the same child would have greatly benefitted the study.

Another constraint of this study was the Likert scale used for responses in the survey. Although the scale was expanded to five possible responses, as opposed to the three originally used in the $A S Q-3$, it still included limited variation in its options. If this study were repeated, it would be suggested that a larger scale be used to allow for more specific responses from the participants.

Shortcomings of this study also included a lack of background data about the participants. The literature suggests that variables such as "average amount of time per day spent with the child" or "amount of current knowledge on language development" could greatly influence parental responses (Tamis-LeMonda et al., 2014; Sheridan et al., 2011).

Obtaining such information along with the survey responses would allow for a more wellrounded image of each participant and parental set. Having further background knowledge could also help to explain variations in data and any outliers that may occur.

## Suggestions for Further Research

Based on the responses from the survey, it is suggested that additional research be conducted focusing solely on the expressive language-based and receptive language-based patterns seen within the data. These results present a trend that could possibly be found statistically significant with further exploration. It is proposed that a larger study be conducted in order to see if the patterns continue with a greater number of participants and parents of children from a more diverse age range. If the results of such research remain consistent with the findings of this study, it could be determined that the discovered patterns were not a chance occurrence.

## Summary

Overall, this study's purpose was to determine if there is a statistically significant difference between genders in the reporting of their child's communication abilities. Literature surrounding parental stereotypes and the impact of the parent in development, as well as stigma in relation to the need for speech therapy services suggested that results may differ between men and women. A survey was created based off of the ASQ-3 and distributed to parents of children between 24 and 36 months old. While the results of the survey did not show a statistically significant difference between men and women, overarching patterns were found within the data. The most notable trends showed that males consistently reported higher average scores for expressive language-based questions while females reported scores either the same or higher than males for all receptive
language-based questions. Based on the conclusions of this study, it is suggested that both parents participate in questionnaires if possible to allow for the most detailed information when looking to identify if a child is in need and eligible for therapy services. However, because no statistically difference between the genders was found, having only one parent take a survey would not likely have a large impact on the overall results and subsequent recommendations of a speech-language pathologist.

## References

Ages and Stages Questionnaires. (2017). Ages and Stages Questionnaires. Retrieved April 24, 2017, from https://agesandstages.com/

American Speech-Language Hearing Association. (2017). What Is Language? What Is Speech? Retrieved April 24, 2017, fromhttp://www.asha.org/public/speech/ development/language_speech.htm

Boyle, M. P. (2013, October). Assessment of Stigma Associated with Stuttering: Development and Evaluation of the Self-Stigma of Stuttering Scale (4S). Journal of Speech, Language, and Hearing Research, 56, 1517-1529.

Fitzgerald, C. E., Hadley, P. A., \& Rispoli, M. (2013, August). Are Some Parents' Interaction Styles Associated with Richer Grammatical Input? American Journal of SpeechLanguage Pathology, 22, 476-488.

Kleinman, A., \& Hall-Clifford, R. (2009, June). Stigma: A Social, Cultural and Moral Process. Journal of Epidemiology and Community Health, 63(6), 418-419.

Marshall, J., Goldbart, J., \& Phillips, J. (2007, September/October). Parents' and Speech and Language Therapists' Explanatory Models of Language Development, Language Delay and Intervention. International Journal of Language and Communication Disorders, 42(5), 533-555.

Sheridan, S. M., Knoche, L. L., Kupzyk, K. A., Edwards, C. P., \& Marvin, C. A. (2011). A Randomized Trial Examining the Effects of Parent Engagement on Early Language and Literacy: The Getting Ready Intervention. Journal of School Psychology, 49, 361383.

Stephens, M. A. (2009). Gender Differences in Parenting Styles and Effects on the Parent Child

Relationship (Honors thesis). Texas State University-San Marcos.
Tamis-LeMonda, C. S., Luo, R., \& Song, L. (2014). Parents' Role in Infants' Language Development and Emergent Literacy. Wellbeing in Children and Families: Wellbeing: A Complete Reference Guide, 1, 91-110.

Taylor, D. C. (2013). Stigma and Prejudice in the Language of Sickness. Epilepsy and Behavior, 27, 204-205.

## Appendix A

Survey

1. Does your child correctly use words like "me", "I", "mine" and "you"?
2. Without giving them clues by pointing or using gestures, can your child correctly carry out directions such as:
"Close the door"
"Get your book"
"Take my hand"
3. Does your child say two or three words that represent different ideas together, such as "See dog" or "Mommy come home"?
4. When you ask your child to point to their nose, eyes, feet, ears, etc., do they do so correctly?
5. Does your child make sentences that are three to four words long?
6. Without giving them clues by pointing or using gestures, can your child correctly carry out directions such as:
"Put the book on the table"
"Put the shoes under the chair"
7. When you ask, "What is your last name?", does your child respond correctly?
8. When looking at a picture book, does your child tell you what is happening or what action is taking place in the picture (for example, "barking", "running", "eating" or "crying")?

## Appendix B

Original Participant Responses

|  | Gender | Pair or Single | Question 1 | Question 2 | Question 3 | Question 4 | Question 5 | Question 6 | Question 7 | Question 8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Participant 1 | Male | Pair 1 | Often | Always | Always | Always | Always | Often | Not yet | Often |
| Participant 2 | Female | Pair 1 | Often | Always | Always | Always | Always | Always | Not yet | Always |
| Participant 3 | Female | Single | Always | Always | Always | Always | Often | Often | Not yet | Often |
| Participant 4 | Male | Pair 2 | Often | Sometimes | Often | Sometimes | Seldom | Often | Not yet | Sometimes |
| Participant 5 | Female | Single | Always | Always | Not yet | Often | Not yet | Often | Not yet | Notyet |
| Participant 6 | Female | Pair 2 | Notyet | Always | Sometimes | Often | Somtimes | Often | Not yet | Sometimes |
| Participant 7 | Female | Single | Sometimes | Always | Often | Often | Somtimes | Always | Not yet | Seldom |
| Participant 8 | Male | Pair 3 | Often | Always | Always | Always | Often | Often | Often | Sometimes |
| Participant 9 | Female | Pair 3 | Often | Always | Always | Always | Often | Often | Often | Often |
| Participant 10 | Male | Single | Often | Often | Always | Always | Always | - | Sometimes | Often |
| Participant 11 | Female | Single | Always | Sometimes | - | Always | Always | Sometimes | Not yet | Sometimes |
| Participant 12 | Female | Pair 4 | Seldom | Often | Always | Always | Often | Often | Not yet | Sometimes |
| Participant 13 | Male | Pair 4 | Often | Always | Often | Often | Often | Often | Not yet | Often |
| Participant 14 | Female | Pair 5 | Always | Often | Always | Always | Often | Often | Not yet | Often |
| Participant 15 | Female | Single | Often | Always | Always | Always | Always | Often | Always | Always |
| Participant 16 | Male | Pair 5 | Always | Always | Often | Always | Often | Often | Not yet | Often |
| Participant 17 | Female | Single | Always | Always | Often | Always | Often | Sometimes | Seldom | Sometimes |

Appendix C


| Question 1 |  | Question 2 |  | Question 3 |  | Question 4 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Men | Women | Men | Women | Men | Women | Men | Women |
| 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 |
| 4 | 5 | 3 | 5 | 4 | 5 | 3 | 5 |
| 4 | 5 | 5 | 5 | 5 | 1 | 5 | 4 |
| 4 | 1 | 4 | 5 | 5 | 3 | 5 | 4 |
| 4 | 3 | 5 | 5 | 4 | 4 | 4 | 4 |
| 5 | 4 | 5 | 5 | 4 | 5 | 5 | 5 |
|  | 5 |  | 3 |  | 5 |  | 5 |
|  | 2 |  | 4 |  | 5 |  | 5 |
|  | 5 |  | 4 |  | 5 |  | 5 |
|  | 4 |  | 5 |  | 4 |  | 5 |
| 4.17 | 3.91 | 4.50 | 4.64 | 4.50 | 4.20 | 4.50 | 4.73 |


| Question 5 |  | Question 6 |  | Question 7 |  | Question 8 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Men | Women | Men | Women | Men | Women | Men | Women |
| 5 | 5 | 4 | 5 | 1 | 1 | 4 | 5 |
| 2 | 4 | 4 | 4 | 1 | 1 | 3 | 4 |
| 4 | 1 | 4 | 4 | 4 | 1 | 3 | 1 |
| 5 | 3 | 4 | 4 | 3 | 1 | 4 | 3 |
| 4 | 3 | 4 | 5 | 1 | 1 | 4 | 2 |
| 4 | 4 |  | 4 | 1 | 4 | 4 | 4 |
|  | 5 |  | 3 |  | 1 |  | 3 |
|  | 4 |  | 4 |  | 1 |  | 3 |
|  | 4 |  | 4 |  | 1 |  | 4 |
|  | 5 |  | 4 |  | 5 |  | 5 |
| 4.00 | 3.82 | 4.00 | 4.00 | 1.83 | 1.73 | 3.67 | 3.36 |

Appendix D


|  | Question 1 | Question 3 | Question 5 | Question 7 | Question 8 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Men | 4.17 | 4.50 | 4.00 | 1.83 | 3.67 |
| Women | 3.91 | 4.20 | 3.82 | 1.73 | 3.36 |

Appendix E


|  | Question 2 | Question 4 | Question 6 |
| :---: | :---: | :---: | :---: |
| Men | 4.50 | 4.50 | 4.00 |
| Women | 4.64 | 4.73 | 4.00 |

## Appendix F

Overall Averages by Gender
Women

|  | Question 1 | Question 2 | Question 3 | Question 4 | Question 5 | Question 6 | Question 7 | Question 8 |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Woman 1 | 4 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 4.38 |
| Woman 2 | 5 | 5 | 5 | 5 | 4 | 4 | 1 | 4 | 4.13 |
| Woman 3 | 5 | 5 | 1 | 4 | 1 | 4 | 1 | 1 | 2.75 |
| Woman 4 | 1 | 5 | 3 | 4 | 3 | 4 | 1 | 3 | 3.00 |
| Woman 5 | 3 | 5 | 4 | 4 | 3 | 5 | 1 | 2 | 3.38 |
| Woman 6 | 4 | 5 | 5 | 5 | 4 | 4 | 4 | 4 | 4.38 |
| Woman 7 | 5 | 3 | - | 5 | 5 | 3 | 1 | 3 | 3.57 |
| Woman 8 | 2 | 4 | 5 | 5 | 4 | 4 | 1 | 3 | 3.50 |
| Woman 9 | 5 | 4 | 5 | 5 | 4 | 4 | 1 | 4 | 4.00 |
| Woman 10 | 4 | 5 | 5 | 5 | 5 | 4 | 5 | 5 | 4.75 |
| Woman 11 | 5 | 5 | 4 | 5 | 4 | 3 | 2 | 3 | 3.88 |
|  |  |  |  |  |  |  |  |  |  |

Men

|  | Question 1 | Question 2 | Question 3 | Question 4 | Question 5 | Question 6 | Question 7 | Question 8 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Man 1 | 4 | 5 | 5 | 5 | 5 | 4 | 1 | 4 | 4.13 |
| Man 2 | 4 | 3 | 4 | 3 | 2 | 4 | 1 | 3 | 3.00 |
| Man 3 | 4 | 5 | 5 | 5 | 4 | 4 | 4 | 3 | 4.25 |
| Man 4 | 4 | 4 | 5 | 5 | 5 | - | 3 | 4 | 4.29 |
| Man 5 | 4 | 5 | 4 | 4 | 4 | 4 | 1 | 4 | 3.75 |
| Man 6 | 5 | 5 | 4 | 5 | 4 | 4 | 1 | 4 | 4.00 |

Appendix G


|  | Pair 1 |  | Pair 2 |  | Pair 3 |  | Pair 4 |  | Pair 5 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Man | Woman | Man | Woman | Man | Woman | Man | Woman | Man | Woman |
| Question 1 | 4 | 4 | 4 | 1 | 4 | 4 | 4 | 2 | 5 | 5 |
| Question 2 | 5 | 5 | 3 | 5 | 5 | 5 | 5 | 4 | 5 | 4 |
| Question 3 | 5 | 5 | 4 | 3 | 5 | 5 | 4 | 5 | 4 | 5 |
| Question 4 | 5 | 5 | 3 | 4 | 5 | 5 | 4 | 5 | 5 | 5 |
| Question 5 | 5 | 5 | 2 | 3 | 4 | 4 | 4 | 4 | 4 | 4 |
| Question 6 | 4 | 5 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Question 7 | 1 | 1 | 1 | 1 | 4 | 4 | 1 | 1 | 1 | 1 |
| Question 8 | 4 | 5 | 3 | 3 | 3 | 4 | 4 | 3 | 4 | 4 |
|  | 4.13 | 4.38 | 3.00 | 3.00 | 4.25 | 4.38 | 3.75 | 3.50 | 4.00 | 4.00 |

