

White Paper: The DownLow

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Abstract

Sex education is important for many reasons. Well-informed children and young adults are better able to protect themselves against abuse, exploitation, unintended pregnancies, sexually transmitted diseases and HIV and AIDS (AVERT). In addition, knowledge about healthy and normal body function helps humans develop without shame or fear of their own anatomy. However, in modern American society, talking openly about sex and sexual organs, especially with young children, is generally frowned upon, and sexual education in schools is limited in scope and biased in content.

Here, we present a plan for a smartphone/tablet application called The DownLow that serves as a resource for children going through puberty to access neutral information about their bodies within an encyclopedic structure. The DownLow is intended to be a source of information for children as they enter puberty and begin to have questions about their bodies, their health, and their sexual relationships. Targeting young children, male and female, ages 8-10, The DownLow seeks to give children a platform to learn about these issues in a semi-private manner, and in a way that would allow school or parental participation if desired.

Background

Sex education is important for many reasons. Well-informed children and young adults are better able to protect themselves against abuse, exploitation, unintended pregnancies, sexually transmitted diseases and HIV and AIDS (AVERT). In addition, knowledge about healthy and normal body function helps humans develop without shame or fear of their own anatomy. Unfortunately, children are not often included in discourse about healthy and normal sexual behavior. Current sexual education programs in public schools are inadequate or non-existent, and, as a result, young, pubescent adults are left with questions and anxieties about their bodies and sexual desires. According to Jon Kolko, “A *wicked problem* is a form of large-scale social or cultural problem that is difficult to solve because of incomplete, contradictory, and changing requirements” (96). Combating wicked problems requires complex solutions, and we feel that The DownLow is one part of the solution toward opening up conversations about sex in a healthy, productive manner.

Current sex education inadequately teaches children how to understand their own bodies, what is physically “normal,” and the reality of sex and sexuality. Teaching children about their own bodies, instilling the idea that they have a choice about their sexual behavior, and informing them of what is normal and okay at a young age will decrease the confusion and shame that some children feel when they begin to go through puberty. We also feel that current sex education does not provide students with an overview of the opposite sex’s body. We feel that men should know about women’s bodies, and women should know about men’s. By segregating the two sexes during sexual education, children who do not know about the opposite sex turn into adults that do not know about the opposite sex. This encourages sexism outside of sexual education; by not understanding or wanting to understand the female body, males do not have to take them into account when they go out into the world. One example of this, pointed out in Sarah Wanenchak’s article “Apple’s Health App: Where’s the Power?”, is the failure of Apple’s preinstalled health application to take the female body into account. Wanenchak says, “They probably weren’t thinking about women at all [when designing the app],” because, as males, they have the liberty of thinking of men and male bodies as the default.

Providing information about the mechanics of sex, the anatomy of the body, and topics such as masturbation will lead to a more informed and sexually-aware youth. This application will also help parents by giving them an outlet to aid them in the task of teaching their children about sexual education, or a place where they themselves can learn about topics that they might not have been informed on. Additionally, this application could be potentially used in school settings, accompanying school-run sex education or as a resource on school-owned devices in libraries and classrooms.

Our group really became interested in this topic because we all feel that our sexual educations as children were lacking, and we are continually shocked at how taboo the topics of sex and the body are within our culture. Although there is some general health information taught to elementary school children, most schools do not require sexual education until middle or even high school. This is problematic because many children, especially girls, hit puberty during elementary school, sometimes at as young as seven years old (Deardorff). Information we've seen online like Lisa Winter's infographic "10 Things You Didn't Know About Vaginas" remind us that many people do not even fully understand their bodies, and many know little to nothing about the opposite sex's body. We feel that these types of sources are important steps toward opening up conversations about sex, but they do not give a comprehensive understanding of the body; they are usually intended to be shocking, humorous, or strange. While children may have access to these types of information, we feel that they need a much more structured, unbiased source readily available to them.

By implementing techniques of feminist interaction design, we can ensure that this app does not fall into these common pitfalls of sex education:

- Twee or quaint language - obscures biological facts by trying to make reproduction seem cute, quaint, and approachable
- Abstinence/moralistic undertones - simply scare tactics that do not help children learn about their bodies
- Hiding facts/refusing to discuss common subjects - shames children by making them feel that activities like masturbation are wrong or abnormal
- Binary definition of gender - alienates non-binary children, also antiquated and untrue

Solution

We believe an unbiased, factual mobile application aimed at educating children and pubescent young adults aged 8-10 about normal body function and development might help mitigate some of the problems of bias, shame, and unclear language described above. The DownLow reinforces the separation of sex and gender, one of the feminist goals we wanted to achieve with this application. As Ruth Hubbard points out in "Rethinking Women's Biology," "the concept, woman (or man), is a socially constructed one that little girls (or boys) try to fit as we grow up" (119). The idea of biological gender roles is untrue, and the social norms associated with gender roles are harmful to people's understandings of their bodies and exclusive of those who do not fit neatly into the gender binary. The DownLow seeks to navigate this issue in a feminist way by not restricting the information to the gender binary, but rather by including non-binary body anatomy and removing the association of gender and sex from our design.

When we first decided to do an application based on sexual education, we searched for other brands that have a similar purpose. We first looked at HappyPlayTime, a website and application aimed at lowering the social stigma of masturbation (Kuo). This website, while an excellent step towards opening up conversations, does not quite fulfill the same intentions as our application. While HappyPlayTime has a fun mascot and features a game, thereby appealing to children, it doesn't provide a thorough index of information like The DownLow would provide to our audience. It also requires the user to play the game before gaining access to the information, thereby limiting what users may see according to the amount of their leisure time, attention span, and access to technology, so we opted out of mimicking the HappyPlayTime structure.

Another site we found was Birdees. This site was much more applicable to our concept. Birdees is a website, application, and education series that seeks to "support and promote health, respect and safety for children, parents and educators" ("About Us"). Birdees uses four animated characters, a cat named Whiskers, a bee named Beetriz, a bird named Pipit, and an owl named Archie, to provide age-appropriate, educational information to young children. We were inspired by Birdees balance between entertainment and education, as well as their commitment to providing resources for parents and children alike. While Birdees is a step up from HappyPlayTime, the app still lacked some of the no-nonsense, unbiased factual information we wanted to provide, and it also reinforces some of the societal euphemisms, like "the birds and the bees," that we hoped to steer clear of in our application.

Advertisement

The DownLow fills a needed niche in the health education app market. While there are applications meant to promote children's awareness of their own bodies and health issues, there is not an easy-to-use, factually-based encyclopedic application designed specifically for children. The DownLow is meant to answer questions that children might have, provide accurate, unbiased definitions of terms children might be exposed to in pop culture, and encourage children to learn about anatomies and terms that might be unfamiliar.

Audience

Our primary audience is children aged 8-10 who may be experiencing puberty and coming into contact with sexual education terminology that they do not yet understand. This application would be a place for them to become better informed and to clear up any confusion that they might be experiencing. However, since the onset of puberty is a wide age-range, we did not want to exclude children who might hit puberty at a later age by making the application too childish.

Parents are also a large target audience for this application. Parents can use the application with their children as a way to shape and guide their own sexual education discussions. We also expect that parents will periodically review information in the app and evaluate whether it is appropriate for their children. Although these audiences are our primary focus, this application is designed to be inclusive of anyone, all ages and genders, as everyone has questions about sex and their bodies. Our goal is to embody the idea of inclusive and alternative design that Dean Nieusma proposes in “Alternative Design Scholarship: Working Toward Appropriate Design.” Nieusma urges designers to take into account how social power operates in design and how they can design in ways that are inclusive to many different users. This type of design advocates social change and progress and designing for the user in a socially responsible way instead of in a consumerist fashion. It is important to us to design in a socially responsible and inclusive manner, while still taking into account our target groups.

Structure

In our original stages of development, we brainstormed a list of several ways to achieve our goal. We created a list of direct or indirect ideas for how to combat the wicked problem of inadequate sex education. After establishing a general concept for our application, we used an affinity diagram to map out the sections we wanted to include. As described by Kolko, an affinity diagram first “list[s] all of the elements in the context of a particular problem on discrete note cards” (45). By creating this list on post-its, we were able to easily rearrange and modify our sections multiple times in the original development so that we could ensure each item was listed in the most logical place, sorted by “thematic similarities” (Kolko 45). While some of the sections and subsections in our original structure were eventually changed, this process helped us come to an understanding of what we felt we needed to include and what we felt was not in the scope of our application.

Relationships What's a healthy relationship?	Reproduction Where do babies come from?	Sex What IS sex?	Personal Care How do you take care of your body?	Anatomy What does your body look like?	Sexual Preferences Who do you think is cute?
Open Relationships	Puberty	Contraception	Physical Health	Female	Gender Stereotypes
	Male Puberty Female Puberty	Condoms The Pill Other Forms	Hygiene Health Care STDs	Anatomy Map Reproductive System Body Anatomy	Male Female
Exclusive Relationships	Menstruation	Intercourse	Emotional Health	Male	Sexuality
Dating Marriage	Tampons Pads Effects Menstrual Cycle	Sex Oral Sex Foreplay	Depression Anxiety Body Issues Health Care	Anatomy Map Reproductive System Body Anatomy	Heterosexual Homosexual Asexual Bisexual
Love	Pregnancy	Masturbation	Appearance	Non-Binary	
Family Friendships	Conception Trimesters Prenatal Care Birth	Orgasm Female Masturbation Male Masturbation	Hair Clothing Cosmetics	Hermaphrodite Transsexual	
		Abstinence			

The final iteration of our application includes a homescreen with six major categories that users can click on. There are subcategories that lead to age-appropriate, encyclopedic definitions within each of these major categories. The chart above shows the final breakdown of the categories to be included in our application, though the sections may need to be amended depending on further user testing and development.

Taking into account Cooper and Reimann's concept of goal-directed design, we sought to make The DownLow as self-explanatory as possible. Our categories are intended to be as clear as possible, though we understand that people may sometimes look in the wrong section for a particular item. To combat this problem, we included the search function on every screen so the user can simply search for a particular term at any point.

This application is structured as an interactive encyclopedia containing neutral information on varying topics related to human sexuality. We based our design inspiration on popular online encyclopedias like Wikipedia since many people are already familiar with this type of design and structure. Users will be able to search the application for specific terms and topics, and there will always be a word of the week on the homepage. The information in our application is organized into color-coded categories that users can browse through for more information. Each of the topics will also have a clip from pop culture or an illustration to further engage users and to aid their understanding.

Language

One of our goals of this application is to present information in an approachable and neutral manner that children can understand and grasp without obscuring any important facts or including bias or stereotypes. We want our approach to be more scientific than moralistic or cute. As discussed in Sano-Franchini, Sackey, and Pigg's "Methodological Dwellings: A Search for Feminisms in Rhetoric & Composition," "The terms we use to refer to ourselves are important." Just as it is important to fully define words like "feminism," "sexism," and "patriarchy" in order to avoid miscommunication or unwanted acquiescence to inequality, it is important that young children have a working knowledge of the terms used to refer to their bodies. By using twee language, society encourages indirect, confusing conversations about sex, which leads children to understand their sexuality as wrong or taboo and prevents them from opening up healthy, respectful, and truthful conversations.

Color

We chose to use yellow and green for our logo, shown to the right, because these colors are relatively gender neutral, and they are also bright and eye-catching, so they will attract children. It is



important that The DownLow is appealing to both boys and girls, and therefore we wanted to steer clear of traditionally male colors like blue and traditionally female colors like pink. The six main sections are broken down into vibrant, gender-neutral colors as well. This color pattern stays consistent throughout the different pages of the app, so that users can draw connections between different definitions and group together concepts via color-coding.

Sample Interaction

The DownLow is organized as an encyclopedia or dictionary application that provides children with factual information about sex, reproduction, and puberty. The homepage of the application offers users six different major categories to explore, as well as a “word of the week” option, meant to encourage exploration of terms users might not otherwise choose to click.

Image 1 shows the home screen. Users have the option to click any one of the six icons, which will take them to a section of subtopics. If they have a specific term in mind, they can search using the microscope feature in the top right. The demo illustrated in Image 1 is in black and white; however, the final app will be in bright yellow and green, to appeal to our young target audience.

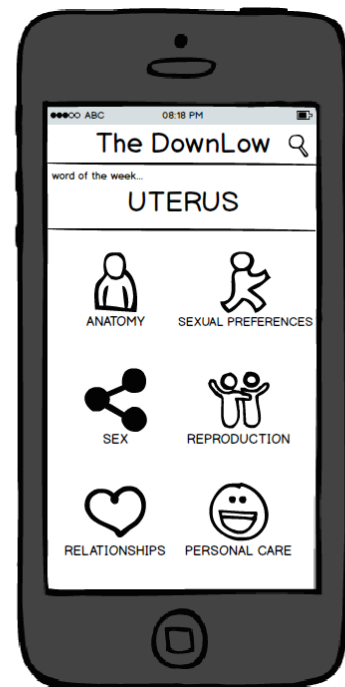


Image 1.

Image 2 shows second and third level pages. The subtopic “ANATOMY” page appears after clicking on the “Anatomy” icon on the home screen. The “FEMALE ANATOMY” tertiary page appears after clicking the “Female Anatomy” icon on the secondary “ANATOMY” page. This navigation system is simple and straightforward. In addition, the use of icons appeals to our target audience and provides an additional level of visual description.

Sample Entry

Each entry on The DownLow will include Wikipedia-style highlighted hyperlinks to other terms that users might not be familiar with. Entries will also include a short clip from pop



Image 2

culture or media that illustrates how the concept is discussed, correctly or incorrectly in society, or an illustration of the term.

For example, the “uterus” entry, shown in Image 3, will include a dictionary-style entry that defines the term and a short clip from a local newscast in which the male anchor appears visibly uncomfortable saying the word “uterus.” A short description will accompany the video, reading:

“Sometimes adults feel uncomfortable talking about anatomy but there is no reason to feel ashamed of these terms!”

The entry accompanying the term will be specifically geared for children aged 8-10. Language will be appropriate for an upper elementary reading level, and will be casual, without extensive scientific jargon. Terms that might be confusing to children will be transformed into hyperlinks that lead to clarifying entries. For example, the “uterus” entry might read:

The uterus is a part of the female reproductive system that is attached to the [fallopian tubes](#). Every month the lining of the uterus thickens and then sheds off as part of the [menstrual cycle](#)...

Future Revisions

After prototyping and sharing our work with our peers, we discussed several changes to our original design. The most important conversation that we had was in regard to parental control. In its present design, our application does not allow for parental control settings; however, we realize that many parents are uncomfortable with their children accessing this kind of information. Since the parents of a large part of our primary audience have direct control over the technology their children have access to, the parents must be comfortable with the information in the application. We debated adding parental control functions, but we were hesitant because we felt that this might allow parents to hide information from children, thereby defeating the purpose of The DownLow. For instance, if parents did not want their children to masturbate and therefore hid the masturbation information, a child who may or may not masturbate anyways would again be prevented from accessing information about healthy, safe, and “normal” masturbation.

Going forward, it is important for us to take into account the parents’ perspective through user testing. We also wanted to conduct user testing with our target audience, but as none of our

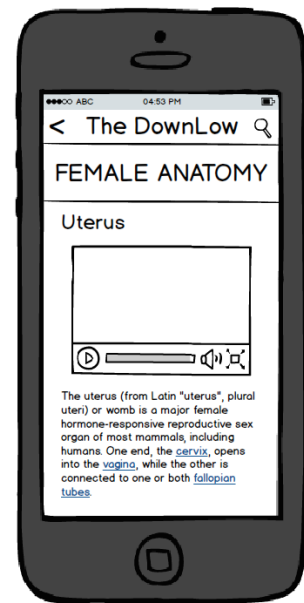


Image 3

group members has a close relationship with children in our target age bracket, we did not feel that we had the authority or the access to conduct this testing comfortably. User testing is an important next step, however, and should be conducted before moving forward with the design process.

Another possible revision to our application would affect the design of the categories. We feel that our breakdown provides a thorough information basis, but we want to take into account any possible revisions our audience might wish to see there or not want to be there. Also, we debated the idea of making the scientific words more accessible to young children; we understand that eight-year-olds might not recognize the words “uterus” or “non-binary,” for example, so we thought about either adding icons or using less scientific verbiage. However, we didn’t want to “dumb down” our application, because we feel that many sexual education resources use euphemisms or language that may further confuse children instead of actually explaining these topics to them.

Using icons instead of a list of words might be a way to potentially work through this issue, as icons can be appealing without having to reword. Additionally, icons can appear easier and more inviting to click on. As Elaine McVicar points out in “Designing for Mobile,” users expect simplified interfaces on mobile applications, and we were concerned about the size of the links being too small to easily click on. However, creating icons for some of our entries, such as the more anatomical ones, might be either difficult or appear inappropriate.

We added the “word of the week” feature to encourage children to look up a word they might not otherwise have thought to learn about. This issue would be another question we would bring up in user testing, so that we could better understand how our audience would use this app.

Conclusion

Opening up conversations about sex is an important step in creating a more gender-equal society. In order for people to feel comfortable with this topic, a great deal of education and encouragement is necessary, and it is important to begin this process with young children, so that they can grow into healthier, better-informed adults. The DownLow is intended to be a source of information for children as they enter puberty and begin to have questions about their bodies, their health, and their sexual relationships. Targeting young children, male and female, ages 8-10, The DownLow seeks to give children a platform to learn about these issues in a semi-private manner, and in a way that would allow school or parental participation if desired. The application encourages open and honest discussions of sex, and it allows children to access information they might otherwise not have access to.

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