Spring 2016

# Yik Yak posts: A discourse analysis

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Department:

# YIK YAK POSTS: A DISCOURSE ANALYSIS

**by**

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**A THESIS**

**Presented to the Graduate Faculty of the**

**MISSOURI UNIVERSITY OF SCIENCE AND TECHNOLOGY**

**In Partial Fulfillment of the Requirements for the Degree**

**MASTER OF SCIENCE IN TECHNICAL COMMUNICATION**

**2016**

**Approved by**

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## ABSTRACT

Anonymity and geolocation create a unique environment for users to communicate with each other. Discourse analysis was conducted to study the posts made on Yik Yak, an anonymous social networking mobile application to understand the communication patterns on an anonymous platform and the posts about taboo topics. The posts were analyzed specifically for patterns on taboo topics and how students interact on the anonymous platform on a particular campus (Missouri S&T campus). Student research assistants coded the collected posts into the pre-defined taboo categories namely sexual activity, non-sexual bodily functions, sexual orientation, mental/emotional health, and "other" taboo topics. I found that users post about taboo topics on Yik Yak and they do it frequently and the most talked about taboo topic is sexual activity. Users on Missouri S&T campus use the anonymous app to communicate with peers on different topics including taboo topics.

## ACKNOWLEDGEMENTS

This study would not have been possible without the unwavering support of my adviser Dr. Kathryn Northcut. I am grateful for the guidance of Dr. Ed Malone and Dr. David Wright in the successful completion of my thesis. I highly appreciate the facilities provided by the Department of English and Technical Communication that helped in the progress of my thesis and throughout my academic career here at Missouri S&T. I sincerely thank the other committee members Drs. Bryan and Hall for accepting to be on my committee and encouraging me to do better. I would not have been able to complete my study without the help of the research assistants who helped me code the data. Finally, I am forever indebted to the continuous support that I receive from my sister and my parents back in India and my dear friends and classmates at Missouri S&T.

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# 1. INTRODUCTION

## 1.1. TECHNICAL COMMUNICATION

The Society for Technical Communication defines technical communication as communication related to a specialized field, which takes place through use of technology (Defining Technical Communication, n.d., para. 1). Communication on subjects like information technology, medicine, electronics, and others through channels like websites, social networks and instructional material is technical communication (Defining Technical Communication, n.d., para. 1). There are several views on the definition of technical communication and its scope. Some describe technical writing based on the subject matter, but there is no clear definition of which subject matter can be considered as "technical" (Miller, 2004). For example, science and engineering are defined as technical in nature but subjects like law, healthcare politics etc. may or may not be considered technical (Miller, 2004). Hence, the definition of technical communication based on subject matter is implausible (Miller, 2004). Frequently, technical writing is mistaken for scientific writing; however, scientific writing is based on mutual interests of a certain community and is meant for the audience of that particular community (Miller, 2004). Technical writing is meant for a target audience as well but it is more varied and is performed for completely different reasons (Miller, 2004).

The STC website describes technical communication as a broad field that encompasses interdisciplinary fields like human computer interaction and rhetoric. Although, some technical communicators argue, that rhetoric has no place in technical writing because it is objective in nature, rhetoric is scientific and technical rhetoric is a part of technical communication (Miller, 2004). Similarly, Rutter views technical communication as rhetorical as well as dynamic, and implores technical communicators to consider it as a part of rhetoric and liberal arts. Technical communication is transactional and rhetorical in nature and people use social networks like Yik Yak for various transactional and rhetorical purposes.

**1.1.1. Social Networking as Technical Communication.** Miller states that technical communication, if bound by too many constraints of form and style, will hamper discovery and invention of new methods of writing (Miller, 2004). Facts are discovered by humans and supported by theory, they do not exist in independent of human thought and logic (Miller, 2004). Similarly, Rutter suggests that piling up data does not necessarily produce useful science (Johnson-Eilola & Selber, 2004). Experience and training are given too much importance but invention comes from comparison and interpretation of facts (Johnson-Eilola & Selber, 2004). Thus technical communication as well shouldn't exist independent of human intervention of rhetoric, style and form (Miller, 2004). Science and technology may be unyielding and rigid but the writing that describes it may not necessarily be unyielding and rigid (Johnson-Eilola & Selber, 2004). Science is rhetorical in nature because it proves a point through observation (Miller, 2004). Similarly, technical communication needs to be an influential account of experience rather than a word-by-word factual account (Miller, 2004).

Technical communication accommodates technology and we as technical communicators need to broaden our perspectives on technology (Johnson-Eilola & Selber, 2004). My study focuses on the posts made on Yik Yak, an anonymous social network as a way of researching the meditating role of technology and humans. Scientific and technological progress is intermittent and fortuitous and technical communicators should be inspired by this creativity and order (Johnson-Eilola & Selber, 2004). Writing that adapts technology for users is technical writing (Alred, 1997). The experience of technology is more important than the technology of writing. To meet the expectations of culture is as equally challenging as writing specifications (Johnson-Eilola & Selber, 2004). Technical communicators should be aware of their work environment as well as their readers' environment. Thus studying Yik Yak posts is analyzing discourse written under unique conditions of anonymity and geolocation, technology accommodated to users.

Technical communication is more than just knowing facts and writing about them, it is about rhetoric and humanistic learning (Johnson-Eilola & Selber, 2004). It stresses upon the writer and thinker rather than just focusing upon the tools or systems being used (Johnson-Eilola & Selber, 2004). Even ancient philosophers like Aristotle and Plato insist

that an orator needs to have a good nature to be a good orator, one cannot become a good orator simply by practice (Johnson-Eilola & Selber, 2004). Hence, the writer brings his/her personality into his/her writing. This applies to technical communication as well (Johnson-Eilola & Selber, 2004). This study tries to implement this approach towards technical communication. It attempts to study the writing produced by users with help of specific technology.

Miller suggests to seek inspiration from the fields of management, sociology and history (Miller, 2004). Technical communication needs to be considered as a humanistic endeavor instead of just a skill-set (Miller, 2004). While Rutter suggests to look at different humanities and liberal arts subjects for inspiration (Johnson-Eilola & Selber, 2004). He states that a liberal education accommodates a person to the needs to others.

Technical communicators collect, analyze, and represent data in a usable manner like the creation of systems and services (Salvo, 2004). Rhetoric is an integral part of design and architecture of systems and processes. Information architecture is a way of using analytical data, rhetoric, and user research to create systems that are functional and serve the purpose that the users desire (Salvo, 2004). Potts, too, stresses the role that technical communicators play while creating systems that are not only usable but also participatory.

Social networking is a combination of communication and information technology (Salmona, Melton & Miller, 2013). These publicly available services can be divided into two types, work-related and general use (Ferro & Zachary, 2013). The evident popularity of social media like LinkedIn and Basecamp which are used for professional purposes place them within the scope of technical communication (Ferro & Zachary, 2013). It is a common assumption that social networking sites are only used for leisure and entertainment; however, social networking sites are also used to get across important messages and sometimes are the "go to" option when users think they are out of help (Bowdon, 2013). People use social networking sites in dire circumstances like a hurricane or a bombing, to seek help and to communicate with others (Potts, 2014). Studying risk communication has always been a part of technical communication (Bowdon, 2013).

Longo (2013) talks about the MacArthur Foundation report that showed adults ranging from 18 to 32 years of age (similar to college students) to be involved in participatory cultures, depicted through tenacious civic engagement and open approval for creating and sharing content. Smartphone users are the "content developers" of today's age (Longo, 2013). Even during dire circumstances, users become content creators when they write content that is relevant to people around them using platforms that they are most familiar with (Potts, 2014). In other situations, users interact directly with the developers of technology and technical communicators should identify their role as a mediator in this interaction (Longo, 2013). For example, dissemination of videos of important news and other critical information is of great interest to technical communicators (Longo, 2013). Longo urges readers to explore the roles of technical communicators as mediators (Longo 2013).

Technical communication skills like writing and designing are practiced on social media too (Ferro & Zachary, 2013). These skills are practiced as a "collaborative effort" (Ferro & Zachary, 2013). It is an additional responsibility of the writer to maintain a social media presence for the reputation of a company (Ferro & Zachary, 2013). Similarly, Kimme Hea (2013) discussed a wide variety of topics related to social networks in a journal special issue introduction. She explores the area of social media in technical communication and stresses the role of technical communicators as mediators between social networks and its users (Kimme Hea, 2013).

In this study, I researched the posts made on an anonymous platform through discourse analysis. This study ventures into the unexplored area of anonymous social networking system Yik Yak to understand what users are posting. Social networks and anonymous networks are of interest to technical communication because of the insight they can provide into participants' experiences in academic workplaces. The uses to which Yik Yak is put are certainly worth researching for understanding our students' lives and culture.

**1.1.2. The Research Questions.** This study attempts to answer the following research questions:

- How are anonymous, location-centered apps used by students on campus?
- What patterns can be seen in taboo topic postings on one campus?

The study sheds light on topics that users post about on social networks and student usage of social networks on campus. The method for the study is primarily discourse analysis coding. Discourse analysis was conducted and the posts were divided into predefined categories. Even before the data collection for the research began, I used the app to familiarize myself with it and the kind of content that users post on it. I have used the app extensively and consider myself proficient with it.

Sex, relationship status, health issues, and emotional trauma, are examples of the taboo topics in everyday life and anonymous platforms help users express themselves more freely (Birnholtz, Merola, & Paul, 2015). This study describes the taboo topics that users post on Yik Yak. It is a common belief that anonymity on social networks leads to cyberbullying and other negative actions (Perez, 2015). Topics such as sex, mental health and physical appearances also make a large part of the anonymous discuss that takes place on the platform.

Studies conducted by Zhang and Kizilcec show that controversial content is more likely to be shared anonymously on social networks. Users have two main concerns: "online privacy" and "sensitive social media data" (Zhang & Kizilcec, 2014). A significant amount of research shows that anonymity affects social networking behavior (Bernstein et al., 2011). Not many social networking sites provide the option of being anonymous. Because of this, it is crucial to understand information sharing behavior in anonymous environments (Zhang & Kizilcec, 2014). Studying the emergent technology features like anonymity, geo-location and ephemeralness will provide a better understanding of communication taking place on mobile platforms and will inform future discussion (Black, Mezzina & Thompson, 2015).

### 1.2. SOCIAL NETWORKS

Social networking is a huge industry. Phenomena like Facebook and Snapchat are evidence of it. One billion people used Facebook on a single day in August 2015 and the social network has more than 950 million daily active users (Zuckerberg, 2015). Over four billion videos are viewed every day on Snapchat, a popular mobile real-time video platform ("Why choose SnapChat," 2015). With millions of engaged users, social networks are a popular mode of communication (Chapman, 2015). The social experience

that users gain by using these applications (apps) is the key factor for the creation and popularity of these networks (Perotti & Hair, 2011).

Anonymous apps like Yik Yak and Whisper are cutting a niche for themselves among the social networking apps industry. Yik Yak and Whisper are growing stronger day-by-day and their growth is attributed to the integration of features inspired by other popular apps like Facebook and Snapchat (Chapman, 2015). This study focuses on the popular location-based mobile phone app Yik Yak. In this study, I explore the interaction between Missouri S&T students that takes place on Yik Yak.

**1.2.1. Yik Yak.** Yik Yak was developed and launched in Greenville, South Carolina by Tyler Droll and Brooks Buffington (McKenzie, Adams, & Janowicz, 2015; Perez, 2015). Yik Yak is a location-based mobile app that allows users to write anonymous posts. The app focuses on university and college campuses and is mostly used by students. The posts have a character limit of 200 words and are censored for inappropriate content. Users post on wide range of topics on Yik Yak, from personal life to career choices. Users are required to register their working mobile number in order to use the app. Once registered, they are allowed to post to the feed closest to their location.

Within a few miles of a given Yik Yak location, users can exchange their thoughts and suggestions in form of "Yaks" (posts). Users can also scroll through the Yak feed of other locations, but they cannot comment or post on it. Information that discloses the identity of a person like names, mobile numbers, and email addresses are auto-deleted by the app (McKenzie, Adams, & Janowicz, 2015). Being an anonymous app, it has robust censorship and content-traceability. For example, Yik Yak implemented geo-fencing to control cyberbullying and misuse of the app (Perez, 2015). Geo-fencing forbids use of Yik Yak in or near 85% of middle and high schools in America (Perez, 2014).

Although it is a popular app and the user-base of the app is increasing day-by-day, there is a lack of academic research on this topic (McKenzie, Adams, & Janowicz, 2015). Yik Yak differs from other social networks in many ways; for example, it is location-based and anonymous. Thus, the users, the interactions, and the entire social web are different than most other social networks (McKenzie, Adams, & Janowicz, 2015). These

factors make Yik Yak an interesting system that has not yet been explored (McKenzie, Adams, & Janowicz, 2015).

**1.2.2. Anonymity.** Anonymity is a double-edged sword; on one hand it harbors honesty and diminishes hesitancy, while on the other, it enables people to act on their negative thoughts (Chapman, 2015). Anonymity treats all users equally and enables a transparent form of communication (Perez, 2015). For example, students post critical commentary about their professors on Yik Yak, which would be rare or have possible repercussions without anonymity. The effects of anonymity have always been debatable. Anonymity can have negative as well as positive effects (Birnholtz, Merola, & Paul, 2015). Posts that are opinion-based or controversial in nature draw users in (Perez, 2015). Thus, taboo topics are particularly interesting in an anonymous social networking system.

**1.2.3. Community.** Discussions that take place within a community are generally positive and reflect a common value for compatibility and belonging. The tendency to form a community around a topic or an opportunity reflects the good in human nature (Longo, 2013). Forming a community is simultaneously an act of inclusion and exclusion as you are excluding people who cannot be a part of that community (Longo, 2013). The tendency of forming a community of people with common interests is particularly true about Yik Yak. Students often post about topics they have in common like classes, dorms, dining hall food, and others.

**1.2.4. Uses of Social Networks.** People use social networks for different purposes, such as maintaining relationships, connecting with people, and entertainment; however, it has been noted that social networks are used for non-entertainment purposes as well (Perotti & Hair, 2011). Users use social networks to seek help, receive updates about on-going events, and contact people (Potts, 2014). Similar patterns can be observed on Yik Yak, as users post about any chaotic or unusual activities taking place on campus or in the community. Recent events at two University of Missouri campuses, Mizzou and S&T, are examples of social networks employed during times of chaos.

On Monday, November 9th, 2015, the President of the University of Missouri System stepped down from his position amid controversies of inaction on racial-discrimination incidents at Mizzou (Belkin & Korn, 2015). The chaos and upheaval on campus started in August 2015 when the university discontinued healthcare for graduate

students. During this chaotic time, two students made threats on the Missouri S&T Yik Yak feed; however, these individuals were arrested shortly which shows that the platform is not truly anonymous. Yik Yak has always been in focus for negative purposes like cyberbullying, harassment and offensive posts. But, it is also common to see personal posts that are related to taboo topics that people would not post about for the fear of being judged. Many users post about their depression, suicidal thoughts, and relationship status without hesitation. Moreover, Yik Yak as a company, and a social network that reaches out to thousands, had a default post which sought help from users for the relief of the victims of the devastating earthquake that happened in Nepal in 2015. Figure 1.1 below, shows the post. Social networks, even anonymous ones, are used for reasons other than recreation and entertainment.

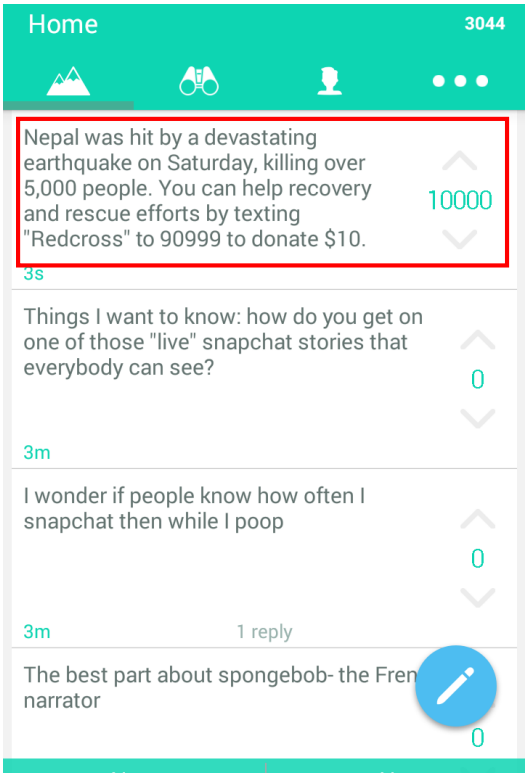



Figure 1.1. Default post by Yik Yak for Nepal's earthquake

# 2. LITERATURE REVIEW

## 2.1. SOCIAL NETWORKS

**2.1.1. Research on Social Networks.** Facebook and Twitter are the most widely researched social networks in technical communication and related fields like human computer interaction. Facebook provides cues to human behavior through status updates and connections with others (Wilson & Graham, 2012). It is considered as a hub of social activity that is continuously updated. Not only does it provide insights on sociological aspects but it also shows how thousands of people share information (Wilson & Graham, 2012). These networks have now become a daily part of our lives, so it is important to understand their helpfulness and harmfulness (Wilson & Graham, 2012).

Wilson and Graham (2012) state that studying Facebook is similar to studying culture because of its fluid nature. The authors consider change to be an integral part of online social networks and expect networks to evolve with time. People use Facebook due to external motivators such as notifications and prompts from Facebook and internal motivators such as the desire to keep in touch with family and friends (Wilson & Graham, 2012). Moreover, this desire to keep in touch with friends is supported by "social capital," or the anticipation of benefits from maintaining connections (Wilson & Graham, 2012).

Wilson and Graham write about self-portrayal on Facebook. Because most of the connections on Facebook are first real-life connections and then online connections, the opportunity to enhance profile or present incorrect information is limited (Wilson & Graham, 2012). People avoid enhancing their profiles if they believe they have strong connections with their friends (Wilson & Graham, 2012). This is one example of how lack of anonymity has an effect on how people use social media.

Sharing content on Facebook makes the users vulnerable to risks like loss of confidentiality, damage to reputation, and identity theft (Wilson & Graham, 2012). A pattern can be seen here: As we progress into this digital age, users become aware of personal risks and take preventive measures by using Facebook privacy settings optimally (Wilson & Graham, 2012). This awareness may not necessarily be motivated

by negative experiences or notions, but are general precautions performed by users (Wilson & Graham, 2012). Although Yik Yak is anonymous, it plays a similar role. People use Yik Yak to communicate during a crisis or for general interaction. It is interesting that users feel the need to use social networks with great care.

Another interesting study conducted by Bowdon on Twitter posts shows that users used Twitter not only for entertainment purposes but also during calamity. With help of student research assistants, Bowdon coded tweets from certain locations to understand the content of the tweets. She also researched the bio-information provided by corporations and non-profit organizations on their Twitter home pages. She found that tweets were episodic and corporations mostly posted self-promotional content.

Birnholtz, Merola, and Paul conducted a study on how anonymity and location affect communication between users on a social network. Anonymity has a dual effect. First, it makes users less hesitant to communicate about sensitive subjects like sex and non-sexual bodily functions. Users would not discuss these topics if they were to be identified (Birnholtz, Merola, & Paul, 2015). Second, users are emboldened by anonymity and may display inconsiderate or discriminative behavior (Birnholtz, Merola, & Paul, 2015). Similarly, my study attempts to determine the topics that users talk about on Yik Yak owing to anonymity and geolocation.

**2.1.2. Flow of Information.** Potts provides a step-by-step description of how data is processed into knowledge through social networks. Potts cites a commonly-used schematic in technical communication in which data is transformed into usable information, which must be again transformed to become knowledge. Data is the first form of content that is found in many forms like images, texts, links, etc. The second phase of content is information. Once data is validated through context, it transforms into information. The last phase of content is knowledge. These phases of content can be used to identify the different ways in which people create and use shared content (Potts, 2014).

There are many activities that people perform on social networks, and Potts argues that technical communicators should create systems that enable content to evolve through these three stages (Potts, 2014). Potts advocates a participatory culture encouraging civic engagement, mentorship, and connection (Potts, 2014).

**2.1.3. Location-based Apps.** Location-based social networks are developed on criteria such as ephemeralness, anonymity and community (Stroeken et al., 2015). Location is an inherent factor to understand the context of the posts made on Yik Yak (Northcut, 2015). The duration that an artifact like a message or a post remains on the network can be described as the ephemerality criterion (Stroeken et al., 2015). The choice to not disclose one's identity is the anonymity criterion (Stroeken et al., 2015). Lastly, as the users are anonymous and possibly not acquainted with each other, it is necessary to limit the number of members based on certain location or a common affiliation (Stroeken et al., 2015). Together, these criteria result in a fourth criterion of goal-orientation (Stroeken et al., 2015).

Yik Yak is a good platform to monitor activity because it curbs the noise that is usually present in social networks (Leskovich, 2015). Hence, it is easier to get accurate, location-based data (Leskovich, 2015). The user's location is important. Yik Yak is a location-based app, so users assume that other users are located in nearby areas. Many users are influenced by their peers and imitate choices made by their peers while sharing content on social networks (Brandtzæg, Luders & Skjetne, 2010). Thus, geolocation matters because users think that they are sharing content with their peers who share common experiences.

Social networks are goal-oriented and it is necessary to make them discernible and thematic in nature (Stroeken et al., 2015). Trust is the binding factor between virtual communities, hence anonymous social networks should strive to create networks that garner users' trust (Stroeken et al., 2015). Two features are prominent for anonymous apps: personalization and non-traceability (Stroeken et al., 2015). Ephemerality encourages casual interaction and non-accountability. Thus, "permanence to moments" is the current trend (Stroeken et al., 2015).

**2.1.4. Anonymous Social Networks and Taboo Topics.** After the closure of Silicon Valley's popular mobile app "Secret," an anonymous sharing platform, many doubted the viability of anonymous apps. Although the founders were able to secure $35 million in funding from top venture capitalists, owners were not able to salvage the app (Chapman, 2015). Secret launched in 2014 and saw acute fluctuation in its popularity. In August 2014, Secret reached its peak of popularity and was ranked 11$^{th}$ in social media

category by App Annie, a mobile app popularity-tracking business; however, this popularity was short-lived. In September 2014, Secret did not rank even in the top 1500 (Chapman, 2015). In April 2015, co-founder David Byttow announced the closure of Secret because the app did not "reflect his initial vision" anymore. The closure is attributed to other reasons like exit of co-founder Chrys Bader and other engineers working for the company (Chapman, 2015). Currently, Yik Yak has 3.5 rating on the App Annie website but it does not rank on in the top 50 apps on Apple App Store or Google Play (Top apps, 2016). Yik Yak has received more than $62 million in funding from different venture capitalists (Shontell, 2015).

Content shared on social networks depicts users' judgments and perceptions (Zhang & Kizilcec, 2014). Sharing information on social networks that discloses users' personal preferences and choices constitutes many psychological and sociological reflections (Zhang & Kizilcec, 2014). People feel less hindered when sharing content anonymously, hence they are more likely to share more aggressive or "anti-normative behavior" (Zhang and Kizilcec, 2014). Sexual and other inappropriate content is more likely to be shared on an anonymous platform (Bernstein et al., 2011). Anonymous platforms allow people to voice their opinions on topics that are controversial or adult in nature.

At the same time, anonymous platforms make it easier for users to be rude and negative without any hesitation (Birnholtz, Merola, & Paul, 2015). One resorts to the internet to find answers for almost anything because of the layer of anonymity that a simple Google search offers. Horsman (2015) too, supports this stance and explains that anonymity supports "freedom of speech and has dis-inhibitory effects". People use anonymity for many reasons: to avoid embarrassment, to maintain reputation, or to simply overcome social awkwardness (Birnholtz, Merola, & Paul, 2015). The authors state that users share data on anonymous platforms that may otherwise be considered a "taboo topic", or a "stigmatized identity." Moreover, the authors found that the responses to such controversial posts were "overwhelmingly positive" (Birnholtz, Merola, & Paul, 2015). Horsman describes distinctions such as "Perceived Anonymity," where users think that because they are online, they cannot be traced, and "Full Anonymity," where users use proxies and encryption for added secrecy (Horsman, 2015).

In a study by Fox, Cruz, and Lee (2015) it was evident that anonymity engendered more sexist behavior on Facebook and in some cases, the disinhibiting factors led to harassment. The researchers investigated whether anonymous posts and non-anonymous posts were written with the same attitude and intent. They further state that, if a sexist comment is not replied back to in an online environment, the comment can be considered harmless or appropriate. Twitter is used to make anonymous posts as well and many of these posts are sexist or related to other prejudiced topics. The level of uncivility increases when the discussion is anonymous (Fox, Cruz, & Lee, 2015).

Users are more willing to share personal information such as preferences and quirks, when their identity is hidden. Stigma is similar to taboo but it reflects more on the person. Whereas taboo is considered a topic of discussion that people would usually avoid. Stigma has categories too, namely, external, character and group. External category deals with the outer appearance of a person such as body weight, accident scars or assault injuries. Character category deals with the behavior of a person such as drug abuse, virginity, or promiscuity. Group category deals with belongingness; a person may feel affiliated to different groups such as race, sexual orientation and classmates (Birnholtz, Merola, & Paul, 2015). Although I do not study stigma as a separate entity, I definitely incorporated its essence in the categories that I defined for the study. For example, the sexual orientation category or the "other" taboo topics category that includes religion, is equivalent to the stigma group category.

Zhang and Kizilcec subjected test participants to videos that were controversial in nature and asked them whether they would want to share it anonymously or publicly on their Facebook wall. The researchers coached the participants by showing them tutorials of how particular content would look on their wall, which was public, and on trending topics on Facebook, which was anonymous. Furthermore, the researchers even asked the participants to rate the videos based on how controversial they felt the video was. They deduced that controversial content was shared more anonymous than publicly. Thus, another study of social networks and anonymity with the use of several qualitative research methods was conducted to publish contributive results.

**2.1.5. Social Network Research in Technical Communication.** People like movement; they do not want to be stuck at a desktop (Potts, 2014). Almost every week a

new mobile app is launched for users to explore (Potts, 2014). Technical communicators work hard to build systems that are not only useful but also culturally appropriate for users (Potts, 2014). One way to improve systems is to observe the exchange of content and distribution of information (Potts, 2014). The idea of a technology or a medium is to modify the pattern or pace. He clarifies that technology is as good as its users (McLuhan, 1964). Technological products and processes are neither good nor bad in nature; they are neutral (McLuhan, 1964). Purpose and intention with which they are used are the key factors. He provides a controversial example of arms use (McLuhan, 1964). He says that arms are not good or bad in nature, but the manner in which they are used is the actual determinant (McLuhan, 1964). It is important that technical communicators study the systems and technologies.

Northcut (2015) conducted a study on the posts made on Yik Yak. She defined four categories in her study namely, shock, joke, inquire and emote. She further defines these categories and includes stigmatized topics such as racism, vulgarity, discrimination, emotional expression, and others. Her results showed that 20% of the posts were coded into the shock category while 25-33% were coded into the joke category (Northcut, 2015). Users make many posts on topics that they would usually not want to talk about in a face-to-face conversation.

Potts studied the posts made on Twitter social networks by using actor network theory (ANT). ANT provides a good overview of the actors of the network like the users, hardware technologies, websites, and software (Potts, 2014). This theory enables researchers to identify actors and follow their path of creation and dissemination of content (Potts, 2014). Mapping the actors permits architects to comprehend the social ecosystem that affects the off-line as well as online interactions (Potts, 2014). But the actor network theory method would not be feasible for my research, mainly because the platform is anonymous and it is difficult to identify the actors.

Bowdon conducted a group analysis of sample tweets. She compared the feed of a "national organization" to its local counterpart. She also evaluated posts like advertisements and promotional posts that have had huge impacts on people. She studied tweets from organizations like Red Cross, Centers for Disease Control and Prevention, and CNN for the US location. Bowdon and her students found that only 3% of the tweets

were "long-term storm trajectory" and only 13% were "time/location specific advice" (Bowdon, 2014). Most of the posts were self-promoting tweets (Bowdon, 2014). Technical communicators can be the mediators between the social networks and the organizations that wish to communicate through these networks.

Inclusion of social networks in documents is indicative of being "explicitly responsive" to today's audiences (Longo, 2013). With an increase in social networks, it has become difficult to define an audience, since anyone who uses the internet can be an audience. Thus, responsibilities of technical communicators have increased (Longo, 2013). When one hears the term social media in the technological world, one immediately thinks of the Web 2.0 technology and not about the end users. As always, technical communication can help bridge this gap between technology and users (Kimme Hea, 2013).

Social media sites like Facebook and Twitter are open to everyone and thus become a source of information (Ferro & Zachary, 2013). They are expected to become as important as email and instant messaging services. Some genres that appear in social media like wikis and blogs have already been studied by technical communication researchers (Ferro & Zachary, 2013).

McGuire and Kampf (2015) assert that technical communicators can help make social networks more user-friendly by understanding “user and customer sentiment.” Technical communicators will be able to establish strong user experience protocols with help of techniques like sentiment analysis. Sentiments can be analyzed by examining the communication that individuals share over social networks like Facebook, Instagram, and Twitter (McGuire & Kampf, 2015). Responses to social network campaigns can be unpredictable and may even turn into negative publicity. Hence, technical communicators can use their skills of user research and experience to guide the social networking campaigns of organizations (McGuire & Kampf, 2015).

Potts in her book Social Media in Disaster Response describes social network ecosystems and stresses on the need of technical communicators as experience architects (Potts, 2014). She defines them as people who “look across ecosystems, building for experiences that move across spaces, systems and networks” (Potts, 2014). Leskovich (2015), stresses on the fact that “emergency managers” can make use of platforms like

Yik Yak to gauge whether actions of protestors during a rally or a riot. Thus, both Potts and Leskovich state that social networks can be used to assess emergency situations.

Similarly, Bowdon postulates a disconnection between the social media managers and the business managers of these organizations. There is "gap" between what the audience wants to read in different situations and what the organization is actually posting (Bowdon, 2014). Professional and technical communicators can fill in this gap by analyzing the situation and the audience (Bowdon, 2014). As the name suggests, experience architects are concerned with the experience that the users have with the system (Potts, 2014). They are the mediators between design and engineering. By following technology and communication practices, they become equipped to pursue research in participant-centered studies (Potts, 2014). Knowledge workers use social media for a variety of work-related tasks like sharing information, editing and sharing documents, connecting with people, planning and coordination, and providing reviews (Ferro & Zachary, 2013). Social media provides new ways to optimize resources by identifying useful information and taking part in a professional community (Ferro & Zachary, 2013). A study conducted on a proprietary microblogging application showed that employees of the organization were more motivated to exchange news about their work with other groups (Ferro & Zachary, 2013).

## 2.2. USES OF SOCIAL NETWORKS

Social networks are often used in times of distress by users to seek help or to disseminate information. Many researchers from technical communication and other backgrounds found that social networks are used by people during crises like natural disasters, man-made disasters and other similar events. For example, Bowdon researched how people used social media in emergencies and distress, focusing on the communication that took place during Hurricane Irene. Bowdon conferred that, on Twitter, where one needs to communicate within 140 characters, it is as easy to harm or embarrass someone as it is to say a good word. Thus, studying the communication patterns on social networks helps us to understand the dynamics of communication during a crisis in a better way.

It is interesting how social networks need to be used with great care (Bowdon, 2014). Bowdon gives example of an airline company that started a Twitter campaign seeking people's experiences with their airlines. Users responded with negative comments and complaints, which did not help the goal of the campaign (Bowdon, 2014). Even though these mistakes are retractable, they leave their digital footprints in forms such as, screenshots or television coverage (Bowdon, 2014).

Bowdon states that the posts on Twitter were "episodic rather than thematic in nature." It shows that under certain circumstances people resort to social networks (Bowdon, 2014). People that used Twitter in dire circumstances were actually seeking help from the platform (Bowdon, 2014). They were looking for help in forms of shelter for the night or directions of the hurricane (Bowdon, 2014). Such incidents show us that people do turn to networks they are most comfortable with (Potts, 2014).

Similarly, Potts chose disaster case studies to show how people use familiar networking sites as compared to ones that are set-up by the disaster relief teams. Mumbai attacks in India were a turning point for online activity during times of disaster (Potts, 2014). Potts states that users opted platforms that were most familiar to them. Users stay away from websites that are specifically set-up for a cause (Potts, 2014). They feel more secure about using the systems that they have already used and are expert at (Potts, 2014).

Similarly, during the events that unfolded on the campuses of Mizzou and Missouri S&T, Yik Yak was abuzz with activity. Many incidents like neglected student surveys, discontinued healthcare and racial slurs became commonplace, which eventually led to unrest among Mizzou students (Weinberg & Blatchford, 2015).

In October 2015, a group named Concerned Student 1950 presented a list of demands that included removal of Tim Wolfe, the president of the University of Missouri System (UMS) (Weinberg & Blatchford, 2015). Inaction from Wolfe agitated the students and a graduate student named Jonathon Butler began an "indefinite hunger strike" for removal of Wolfe. On November 7, the Black Missouri football players decided to "boycott football-related activities" until Wolfe is removed from the system (Weinberg & Blatchford, 2015). On Monday, November 9, 2015 Wolfe stepped down

from his position amid controversies of inaction on racial-discrimination incidents at Mizzou (Belkin & Korn, 2015).

Although Yik Yak is anonymous, it plays a similar role as any other social network. All these events on campus led to frantic activity on Yik Yak; people were posting about the happenings at Mizzou, the riots, the football game and other related topics. Among these posts, two users made threats to the Mizzou campus, which caught national attention.

Yik Yak is an anonymous app, but it asks users to register their mobile phone numbers in order to use the app (Buffington, 2015). In real sense, the posts that the users make are not anonymous. Law enforcement can seek the IP address or the mobile phone number from Yik Yak Inc. if they spot a suspicious post (Buffington, 2015). The app is anonymous only among users; the company makes it a point to help law enforcement to keep the app and the related community safe (Buffington, 2015).

Even though social media is mostly used for leisure and recreation, it is also used to convey important messages and is sometimes the "go to" option when users think they are out of help (Bowdon, 2014). Yik Yak displays a similar pattern, because one will find students asking for career and relationship advice. They feel safe in their anonymity and do not hold back even if their questions may be a bit odd or unconventional (Chapman, 2015). Secondly, they think that seeking help from peers is a better idea than seeking help from parents, teachers, or friends that do not study or live nearby (Perez, 2015). Hence, it can be seen that social networks are used by people for reasons various reasons.

To study different the social networks, researchers use various theoretical models and both qualitative and quantitative research methods. Potts (2014), for example, uses Actor Network Theory, Bowdon (2014) conducted discourse analysis, Northcut's (2015) work includes surveys, interviews, and discourse analysis. Bowdon (2014) held focus groups. The following paragraphs provide an overview of the methods used by different researchers for their studies of social media.

# 3. METHODS

Anonymity and geolocation make Yik Yak an interesting social networking system for a research study. I studied the posts on Yik Yak that fit into several specific categories of taboo topics. Taboo topics are topics that have been stigmatized by the society in general (Birnholtz, Merola, & Paul, 2015). Users would usually not discuss taboo topics if they knew they would be linked to the topics in any way (Birnholtz, Merola, & Paul, 2015). Studying Yik Yak at the Missouri S&T campus is a way to address the research questions of anonymity, location, and taboo topics. This chapter explains how the data was collected, coded, and analyzed.

## 3.1. SELECTING THE RESEARCH METHODS

Qualitative research methods were used for this study. Quantitative methods are used when numbers are calculated, such as determining the number of words in a particular text. Hughes and Hayhoe describe qualitative data as “nonnumeric”, one which contains text, images etc. Qualitative data is analyzed using qualitative methods such as coding and categorizing. Coding involves breaking down the data into small units and categorizing involves identifying patterns and grouping the data (Hughes & Hayhoe, 2008).

Having a tangible sample set is the first step towards qualitative analysis (Hughes & Hayhoe, 2008). Hence, a sample set of the screenshots was a good data set for the research. Defining a set and then choosing a sample from the set is a standard practice (Geisler, 2004). Blythe (2007); however, says that distinction between samples may not be evident while analyzing digital texts. In a blog, usually one link leads to another, hence it is difficult to comprehend when to stop, unless it is pre-decided where to stop (McKee, 2007). As this study does not involve any type of online links, it was easier to draw boundaries.

Conducting a pilot study before the actual study is a recommended practice (Geisler, 20014). It helps in identifying the strengths and weaknesses of the chosen

research methods. Once the loopholes of the methods are identified in the pilot study, they can be rectified for the actual research study.

Geisler suggests to first choose a unit for the verbal data that needs to be coded and further analyzed. Researchers can choose from a variety of units like words, T-units, clauses, nominals, verbal etc. For example, a T-unit consists of principle clause and sub-ordinate clause (Geisler, 2004). T-unit is an ideal unit to code text that represents movements of the writer. Such units consist of emotions, relationships, and reactions between the different entities of the sentence. For this study, the chosen unit is a posting, which is similar to a T-unit but is more comprehensive in nature. An individual post is defined as a single Yak made by a user. Each individual post is treated as a single component of the data set.

## 3.2. DATA COLLECTION

A corpus of posts was collected between April 2015 and May 2015 to determine the number and type of posts made on taboo topics. For this study I used the purposeful sampling method. When a researcher has certain criteria for collecting the data, it is called as purposeful sampling (Koerber & McMichael, 2008). I had a certain influence on the way the data set was chosen. Screenshots were taken during three different time slots each day: morning, noon, and night, so that the posts were not repeated on the screens. Each screenshot has approximately four posts and 90 such screenshots were collected. Hence, the sample set consists of 360 posts that were analyzed and interpreted. Figure 3.1 below shows a sample screenshot that contains four posts made by users on Yik Yak.

**3.2.1. Requirements for Discourse Analysis.** To conduct a solid study, 200 to 500 units of data should be analyzed if the units are short like a phrase or a short posting (McKee, 2007). Thus, a collection of 360 posts can be considered a satisfactory sample set. 90 such screenshots were used for the discourse analysis.

**3.2.2. Coders.** Two undergraduate students at Missouri S&T were recruited to code the posts into the five categories. One male and one female student were recruited as research assistants for the study. Both the students hail from the Midwest and are representative of the general population at the university.

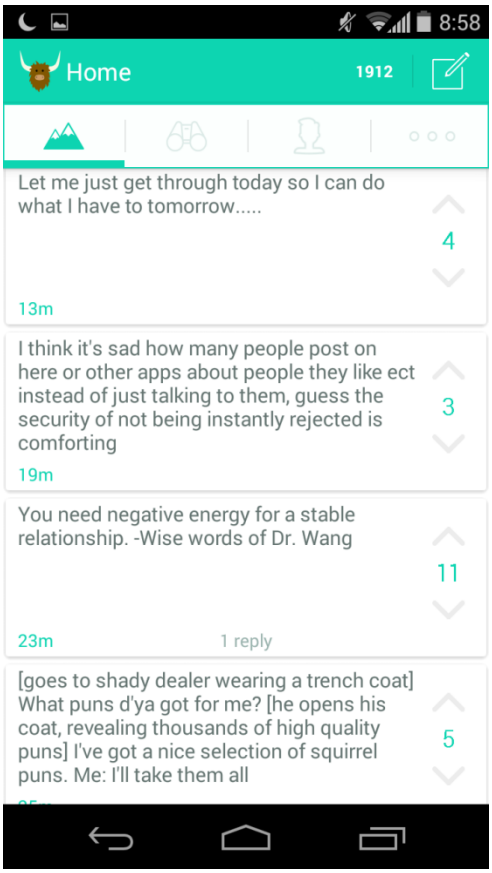



Figure 3.1. A sample screenshot

**3.2.3. Categories for Coding.** Coding non-verbal data according to the phenomenon that one is interested in is also a standard practice (Geisler, 2004). Coding should be completed in one sitting and show regularities in the data (Geisler, 2004). It is a good practice to have two sets of data: one that displays the phenomenon in an obvious manner and another where the phenomenon is difficult to identify (Geisler, 2004). In this study, only the obvious display of phenomenon (taboo topics) was observed. Non-verbal units measure how the communication takes place among different entities (McKee, 2007). Codes can either be created before analyzing the data or even before starting the study. Existing set of codes can be used to code the data. It is also possible to create codes as one progresses further into the study. A researcher can read through the sample data and then identify codes that may be suitable for the study. The method depends on

the type of study (McKee, 2007). For this study, the categories were defined after secondary research on the subject was conducted.

One set of code should be used to analyze one sample set. Each code should relate to one type of unit. The data is then coded and a record of the coding system is maintained. Then, the results obtained from the coding are analyzed to recognize trends and patterns. These trends and patterns can be based on the frequency and distribution. Coding texts indicates cultural and behavioral patterns. There are other direct methods of collecting and segregating data, like interviews and surveys; however, both the methods are subject to individual perception. Moreover, coding is a great way to analyze what a text means. Lastly, it is used as a tool of reflection, which provides invaluable perspectives. It should be combined with other methods so as to conduct a comprehensive study (Geisler, 2004).

First a coding scheme was created. There are two ways to create a coding scheme, one is to use existing categories while the other is to create altogether new categories (Geisler, 2004). Each unit of the data sample should be coded into one and only one category, with no overlap. If there is an overlap, then a new category should be added so that each post is coded into one single category (Geisler, 2004). For this study, I created new categories for coding as these categories were better supported by the data. Northcut (2015) also created new categories to code the data that she had collected. She "brainstormed and informally tested" the corpus first before performing the actual coding. After analyzing the sample set, I came up with five taboo categories for my study.

The five categories identified were sexual activity, non-sexual bodily functions, sexual orientation, emotional/mental health, and "other" taboo topics. The categories were chosen based on Birnholtz, Merola and Paul's study. The categories are also a good "representative of rhetorical purposes" that are apparent in the posts (Northcut, 2015). Furthermore, I chose these specific categories because they define the nature of the study and depict the use of social networks for more than entertainment and recreational purposes.

## 3.3. IMPLEMENTING THE RESEARCH METHODS

To validate the defined categories, I conducted a pilot study before coding the entire data set. Blythe (2007) states that conducting a pilot study will help encounter problems that researchers may otherwise not anticipate. The purpose of the pilot study was to confirm that the codes were "mutually exclusive." Also, if I came across an "interesting phenomenon" that was otherwise not observed, then it could be noted and observed in the actual study (Geisler, 2004). Both the pilot study as well as the actual study were conducted by coding the data set according to the predefined categories. Forty screenshots were selected from the corpus of 90 for the pilot study. 40 screenshots that contained 160 posts were coded. 40 screenshots is almost half of the corpus hence I was confident that I would be able to detect trends and patterns easily. Geisler (2004) too suggests that a considerable number of items from the data set must be chosen for a pilot study.

**3.3.1. The Pilot Study.** The pilot study was conducted by me and another female graduate student in technical communication at Missouri S&T. The second coder was chosen based on her experience with the app, her student status at Missouri S&T, and her representativeness of the school population. The actual research study would include two research assistants coding the data into the separate categories. Thus, it was an obvious approach to have two coders for the pilot study as well. I printed two copies of the collected posts on paper and used different colors of highlighting pens to code the data on paper. I assigned a specific color of highlighter to each category. Sexual activity was coded with a pink highlighter, non-sexual bodily functions was coded by orange highlighter, sexual orientation was highlighted by green highlighter, mental/emotional health was highlighted by blue highlighter, and "other" taboo topics was highlighted by yellow highlighter. The highlighted printouts of the screenshots of the pilot study are attached as Appendix A.

The second coder and I conducted the pilot study in the library of Missouri S&T. I read through each post on each of the printouts and highlighted the ones that fit into a particular category. The second coder coded the posts simultaneous in a similar manner. Once we completed the coding process, I collected all the printouts and calculated the number of times a category appeared in the data set for both the coders. I created a

Microsoft Excel file specifically for coding and entered the count into the file. The number of times a particular category appeared in the data set for both the coders was recorded individually.

**3.3.2. Results of the Pilot Study.** In the pilot study, I found that the categories were functional and coders were able to classify posts into these categories. Although we came across an odd post that could fit into two categories, we chose to classify it into the one that it matched the most. The overlap was almost negligible. After collecting all the numbers from the pilot study into the Excel file, I calculated the simple agreement and relative frequency. I counted the number of posts that the second coder and I coded under each of the categories. I entered these numbers in two different columns in the Excel file and calculated the total for each coder. The total number of posts that the second coder and I coded into any predefined category was 56. While coding, we came across a post that appeared twice due to some technical glitch that the user might have faced while they were creating the post. We also came across two posts that were posted by Yik Yak as a default to seek for help for Nepal's 2015 earthquake victims. We did not code these three posts. Hence we each coded 56 posts into the five categories and 47 of these posts overlapped. Figures 3.2 and 3.3 below show the distribution of the coded posts according to the various categories.

Once the number of posts under each category for each coder was determined, I proceeded to calculate the simple agreement. Simple agreement is the number of times two coders actually agreed over a particular post divided by the number of times that they could have agreed. The second coder and I could have agreed on 64 posts but we actually agreed on 47 posts. I then multiplied the answer by 100 to convert it into a percentage.

Following is a sample calculation performed with the help of the formula provided by Geisler in her book *Analyzing Streams of Language*:

Number of agreements/number of coding decisions

=47/64

= 0.734375*100

=73.43%

Posts coded as taboo topics by coder 1 (pilot study)

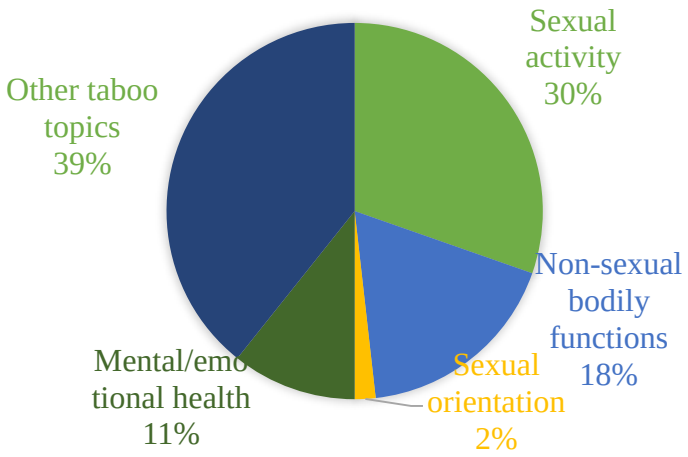



Figure 3.2. Posts coded as taboo topics by coder 1 for the pilot study

Similarly, I determined the simple agreement for each of the categories. I did this by using a formula in Excel and then applying the formula to the entire column. I chose to use Excel and its formulas because Geisler urges researchers to use the application due to its versatility and ease-of-use.

I then proceeded to calculate the relative frequency of each of the categories for each of the coders. I calculated the relative frequency with the help of the formula provided by Geisler. The relative frequency was calculated by dividing the number of

times a category appeared in the coded data by the total number of posts that were coded under all five categories.

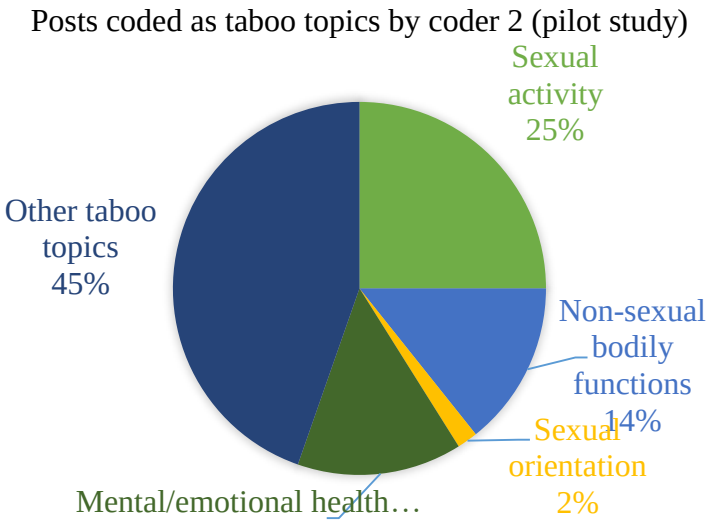



Figure 3.3. Posts coded as taboo topics by coder 2 for pilot study

The total number of posts coded by each coder was 56. The number of posts coded under the sexual activity category was 17. Then, I multiplied the answer by 100 to determine the percentage. The calculations are as follows:

Number of segments assigned to a category/number of segments in all categories

=17/56

=0.3035*100

=30.35%

Thus, 30.35% of the posts coded by me were coded into the sexual activity category. Similarly, the relative frequency for the remaining categories for both the coders was calculated. Table 3.1 below shows the relative frequency of each of the categories.

Table 3.1. Relative frequency – Pilot study

| **Categories** | **Coder 1** | **Coder 2** | **Relative frequency coder 1** | **Relative frequency coder 2** |
|---|---|---|---|---|
| Sexual activity | 17 | 14 | 0.303571429 | 0.25 |
| Non-sexual bodily functions | 10 | 8 | 0.178571429 | 0.142857143 |
| Sexual orientation | 1 | 1 | 0.017857143 | 0.017857143 |
| Mental/emotional health | 6 | 8 | 0.107142857 | 0.142857143 |
| "Other" taboo topics | 22 | 25 | 0.392857143 | 0.446428571 |
| **Total** | **56** | **56** | | |

### 3.4. THE RESEARCH STUDY

After validating the categories in the pilot study, I proceeded with the extensive study. Two students from the Missouri S&T campus were recruited as research assistants to code the data. Both the research assistants simultaneously read through all the 360 posts and coded them. Having a two-person coding system helps establish reliability, which relates to consistency (Geisler, 2004). For example, Northcut (2015) in her study uses interrater reliability to a great extent. The categories of the posts that were agreed upon by both the research assistants show reliability of the data. As verbal data is sensitive to interpretation, reliability is a way to ensure that the study of the data maintains its analytical nature.

I chose research assistants who have used the app on regular basis because they are already familiar with the app's environment and this would eliminate any element of

surprise that may occur by reading posts of a certain nature for the first time. I refrained from recruiting participants who do not have any experience with the app because it may lead to bias and may generate results that are based on momentary sentiments. The research assistants for coding the data were chosen with great care, keeping in mind the general student body that attends Missouri S&T. As 80% of the student body consists of undergraduate students, I decided to recruit undergraduate students for the study. The students that were chosen had been on campus for at least a year and had at least one month of experience with the app. To eliminate any cultural influences other than American, the selection was narrowed down to American undergraduate students from Missouri. I wanted to observe if gender had any influence on the interpretation of the posts and hence decided to recruit one male and one female student as coders.

All posts were carefully read by the research assistants who then determined the category of the post. After categorizing the posts, the frequency under each category was noted and interpreted. Each assistant went through all the posts collected for this study and coded them individually. They were provided with the categories and the highlighters that corresponded to the categories. Sexual activity was coded by a pink highlighter, non-sexual bodily functions was coded by orange highlighter, sexual orientation was highlighted by green highlighter and mental/emotional health was highlighted by blue highlighter. They were familiarized with the coding process and were explained how to code the data. They had to read the posts one at a time and determine whether it can be classified into one of the four predefined categories. Any eligible post should fit into only one category, overlapping was to be avoided. Both the coders worked simultaneously on the data in a single sitting. Once they finished coding the data, I then segregated the results into an Excel sheet specifically maintained for this study.

Once the results from the coding were entered into an Excel sheet, the number of posts occurring under each category were calculated. After all the instances were noted, the “simple agreement” was calculated to achieve interrater reliability. Simple agreement is calculated by determining the number of times two coders actually agreed on a certain category for a certain data item against the number of times they could have agreed (Geisler, 2004). The number of categories chosen for this study were four, hence “simple agreement” can be considered to calculate the interrater reliability. The next step was to

calculate the frequency of each of the categories. This was achieved by using formulas in Excel. I sorted the data according to each category and noted the number of times a category appeared. Similarly, frequency for each category was calculated. Finally, relative frequency was calculated by diving the number of items assigned to a particular category by the total number of items assigned to all categories.

The coding was conducted on the university premises in the library. Similar to the pilot study, I reserved a room to conduct the coding in a controlled environment. Both the coders coded the data on separate occasions according to their availability. I met the coders in the library room reserved for the occasion and first briefed them on the coding process. I read the script I had specially developed for the briefing, to them. The script can be found in the Appendix B. In the script I provide an overview of what is coding and how it is to be conducted. Step-by-step instructions were provided to the coders on how to read the posts, and how to highlight them, after which the coders started coding the data. There were instances where the coders thought out-loud if they were confused, but eventually they ended up making the decisions on each of the posts. Both the coders coded the data in one sitting. Once the entire data set was coded, I thanked the coders and collected the highlighted printouts.

Similar to the pilot, I counted the number of posts highlighted for each of the categories by each coder. The number of posts under each category for each coder was used to calculate the simple agreement and relative frequency. I then counted the number of posts that had been highlighted in the same color by both the coders. This number provides the number of posts that both the coders agreed on. Lastly, I counted the number of posts that both the coders highlighted for each category and for every post where they highlighted with the same color was counted as one and where they highlighted with a different color was counted as two. This number gave the total number of decisions that were made by the coders. Geisler's formula was used to calculate the simple agreement as well as the relative frequency. All this data was entered into an Excel file to perform calculations and determine the interrater reliability as well as the relative frequency.

# 4. RESULTS AND ANALYSIS

The discourse analysis conducted on the posts made on Yik Yak sheds light on the taboo topics that users write about. The coding conducted by the research assistants (also coders) was very helpful in determining the validity of the categories and understanding the frequency of taboo topics on Yik Yak. Each coder coded a total of 357 anonymous posts. Out of these 357 posts, 46% were coded as taboo topics.

## 4.1. RELATIVE FREQUENCY

Relative frequency gives the number of posts that have been coded under a particular category out of all the coded posts. These calculations focus on the nature of the taboo topic of the posts. It also provides a good breakup of the total number of posts coded by each of the coder.

Coder 1 highlighted 91, that is, 25% of posts and coder 2 highlighted 146, that is, 41% of the posts as taboo topics. Together, they coded a total of 165 posts, that is, 46% of the corpus as taboo topics. Coder 1 coded 25% of his coded posts as sexual activity, 19% of the posts as non-sexual bodily functions, 0% as sexual orientation, 25% as mental/emotional health and 31% as “other” taboo topics. Figures 4.1 below compares the breakup of the posts highlighted by coder 1 and 2.

Coder 2 highlighted 15% of the coded posts as sexual activity, 12% as non-sexual bodily functions, 2% as sexual orientation, 30% as mental/emotional health and 41% as “other” taboo topics. Figure 4.1 below shows the breakup of the posts highlighted by coder 1 and 2 as taboo topics. The most coded category was the “other” taboo topics category, coder 1 coded 30% of the posts, and coder 2 coded 41% of the posts into this category. The least coded category was sexual orientation. The complete set of calculations can be seen in the Table 4.1.

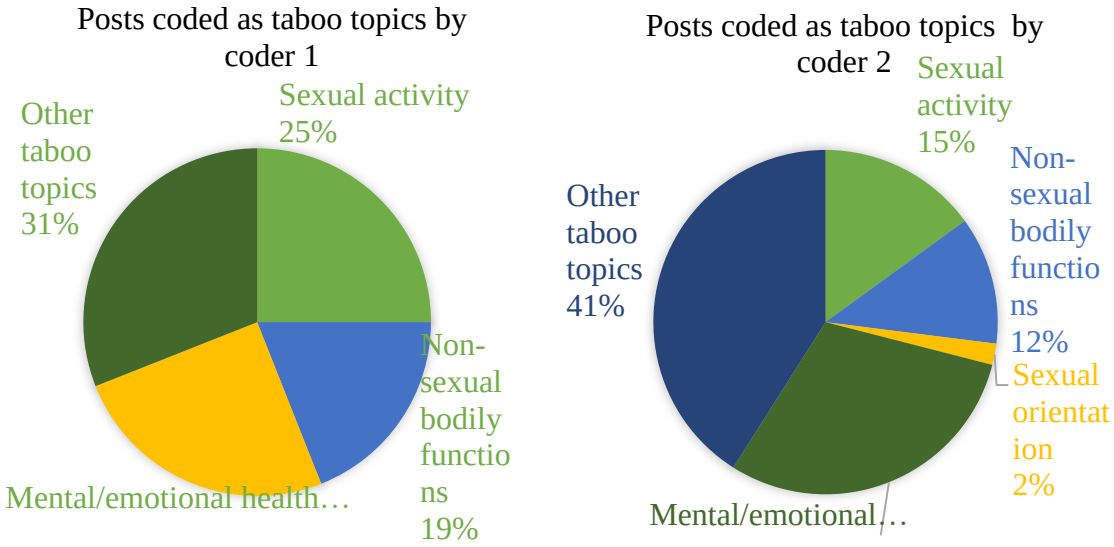



Figure 4.1. Highlighted posts by coder 1 and 2

Table 4.1. Relative frequencies of coder 1 and 2

| **Categories** | **Coder 1** | **Coder 2** | **Total** | **Relative frequency coder 1 (%)** | **Relative frequency coder 2 (%)** | **Total (%)** |
|---|---|---|---|---|---|---|
| Sexual activity | 17 | 14 | 31 | 30.35714286 | 25 | 27.67857 |
| Non-sexual bodily functions | 10 | 8 | 18 | 17.85714286 | 14.28571429 | 16.07143 |
| Sexual orientation | 1 | 1 | 2 | 1.785714286 | 1.785714286 | 1.785714 |
| Mental/emotional health | 6 | 8 | 14 | 10.71428571 | 14.28571429 | 12.5 |
| "Other" taboo topics | 22 | 25 | 47 | 39.28571429 | 44.64285714 | 41.96429 |
| **Total** | **56** | **56** | **112** | | | |

**4.2. RELIABILITY**

Coder 1 coded 91 posts and coder 2 coded 146 posts as taboo topics. Each coder had to make 168 coding decisions to mark a particular post into a category. Out of these 168 decisions, 72 were mutual decisions. In other words, both the coders coded these 72 into same categories. Following Figure 4.2 shows the overlap of posts coded by the two coders.

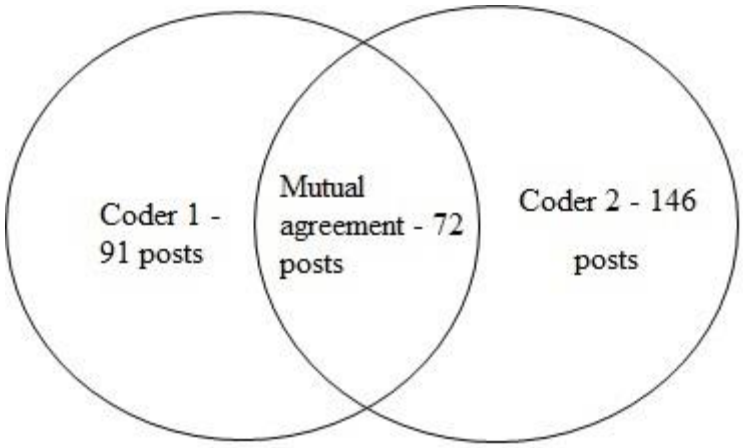



Figure 4.2. Simple agreement between coder 1 and 2

Table 4.2 shows the simple agreement between coder 1 and 2 for all the categories.

Table 4.2. Simple agreement between coder 1 and 2

| Categories | Coder 1 | Coder 2 | # of agreements | # of coding decisions | Simple agreement | % of simple agreement |
|---|---|---|---|---|---|---|
| Sexual activity | 23 | 22 | 17 | 28 | 0.607142857 | 60.71428571 |
| Non-sexual bodily functions | 17 | 18 | 10 | 24 | 0.416666667 | 41.66666667 |
| Sexual orientation | 0 | 3 | 0 | 3 | 0 | 0 |
| Mental/emotional health | 23 | 43 | 18 | 50 | 0.36 | 36 |
| "Other" taboo topics | 28 | 60 | 27 | 63 | 0.428571429 | 42.85714286 |
| Total | 91 | 146 | 72 | 168 | 0.428571429 | 42.85714286 |

**4.3. FINDINGS**

Simple agreement was the highest for the sexual activity category with more than 60% agreement. Similar pattern was observed in the pilot study as well, with more than 87% agreement between the coders. For example, in the following Figure 4.3, it can be seen that the coders did not hesitate to mark posts that had any kind of sexual content in them.

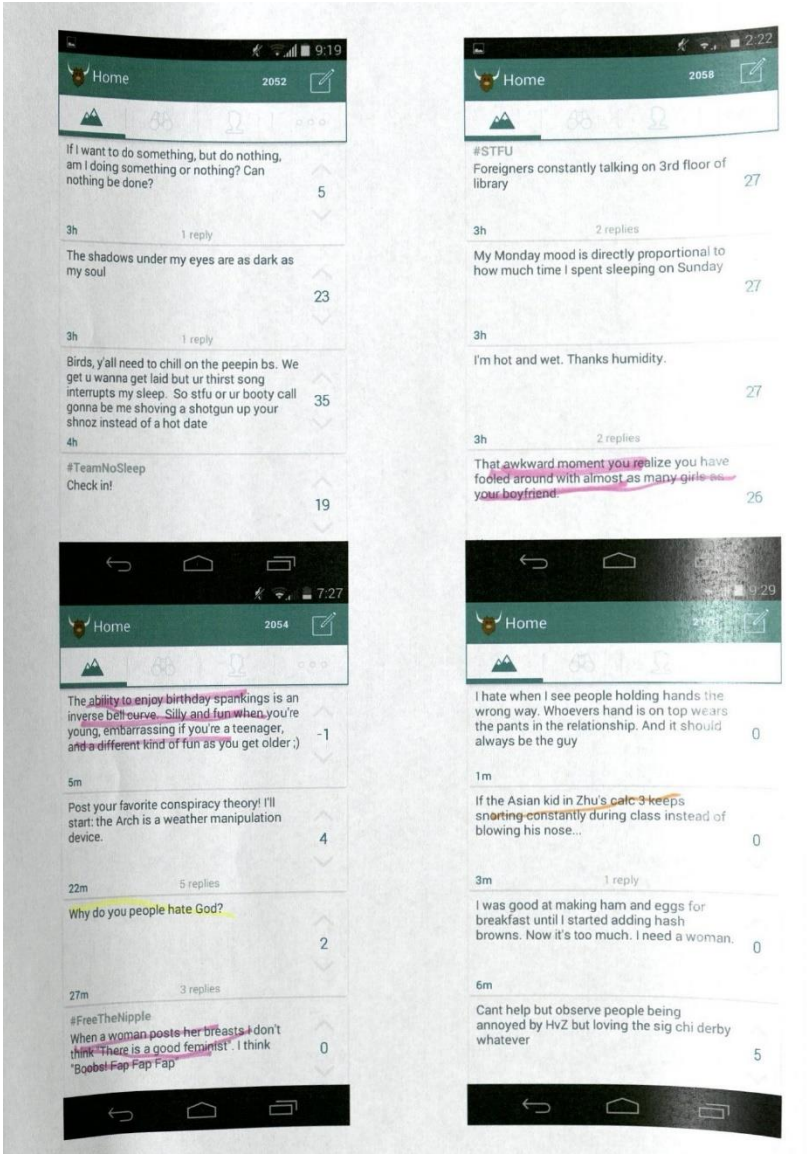



Figure 4.3. Posts marked as sexual activity in the large study by coder 1

While, posts that did not have a clear meaning, or contained innuendos were difficult for the coders to code into categories. The sexual orientation category was the least coded one. In the pilot study, each coder was able to identify only one post that fit into this category while in the larger study, only coder 2 found a few posts to be fitting into the category. I did not rectify or eliminate the sexual orientation category after the

results of the pilot study were calculated because I assumed that although I didn't observe many posts in the pilot data, the coders may find it in the larger data.

**4.3.1. Simple Agreement of Each Category.** Each category showed a different level of agreement between the coders. The percentage of agreement for each category and comparison to pilot data is discussed in the following paragraphs.

**4.3.1.1. Sexual activity.** Coder 1 coded 23 posts as sexual activity while coder 2 coded 22 posts. The coders had to make decisions on 28 posts that they highlighted as sexual activity. Of these 28 posts, they made same decisions for 17 posts, which is 60.71% of agreement. In the pilot data coder 1 coded 17 posts as sexual activity while coder 2 coded 14 posts. They had to make decisions on 16 posts and their decisions matched for 14 of the 16 posts which is 87.5% of agreement.

- "Hacking is like sex. You get in, you get out, and hope that you didn't leave something that can be traced back to you" and
- "You know, if school sucked any harder, I would constantly be having an orgasm" are examples of posts coded under the sexual activity category by both the coders.

The coders agreed on these posts because they contain obvious indicators such as terms "sex" and "orgasm". Such indicators help coders code posts into the appropriate category. Some posts were coded under this category but were not agreed on by both the coders. For example:

- "Birds y'all need to chill on the peepin bs. We get u wanna get laid but ur thirst song interrupts my sleep. So stfu or ur booty call gonna be me shoving a shotgun up your shnoz instead of a hot date" and
- "When a woman posts her breasts I don't think "There is a good feminist". I think 'Boobs! Fap Fap Fap'".

Although these posts contain some type of sexual content, they are perceived differently. They do not contain obvious terms like "sex" or "masturbation" for the coders to code them under this category. The posts contain terms that coders may not be familiar with such as "Fap" and "shnoz". Moreover, both the posts have a hint of humor in them, thus the coders may have thought the posts to be humorous rather than sexual.

**4.3.1.2. Non-sexual bodily functions.** Coder 1 coded 17 posts under the non-sexual bodily functions while coder 2 coded 18. The coders had to make decisions on 24 posts out of which they agreed on 10 of the decisions, leading to 41.66% agreement. While in the pilot study, coder 1 and coder 2 coded 10 and 8 posts as non-sexual bodily functions respectively. They agreed on 7 decisions out of the 11 decisions that they had to make, leading to 63.63% agreement.

Both the coders agreed on posts such as:

- "I was in the bathroom with two people that didn't wash their hands afterwards. Is this really a thing?" and
- "When your clit itches, but there's no discreet way to scratch so you walk awkwardly to try and alleviate it".

The posts contain terms like "bathroom" and "itching" which are clear indicators of non-sexual bodily functions like urinating and bodily discomfort. It was easier for the coders to identify such terms and the posts.

Following are a couple of example posts that were highlighted under non-sexual bodily functions category but were not agreed on by the coders:

- "Well having poison ivy on your balls is miserable if you were wondering" and
- "I just ate half a big bag of pizza rolls and now I have the food sweats. I regret nothing"

These posts seem confusing. Allergic reaction can be considered as a non-sexual bodily function but it is not a taboo to talk about it but the post mentions the term "balls" which may make the topic a taboo. Similarly, excessive sweating or over-eating can be considered as taboo topics but not by all.

I observed that one of the coders coded posts such as "Why is it so easy to fall asleep for naps but not at night?" and "If you snore, don't fall asleep in class" under non-sexual bodily functions category. Although the posts contained clear indicators like "asleep" and "snore" which are non-sexual bodily functions, but definitely not taboo topics that cannot be spoken about in a face-to-face conversation. The coder may have highlighted these posts for several reasons. One reason may be that the coders were not provided extensive training on taboo topics and the coding method itself. It may also be

possible that the coder forgot that he was supposed to highlight only taboo topics and refresher briefing was necessary.

**4.3.1.3. Sexual orientation.** Coder 1 did not code any posts under this category while coder 2 coded only 3 posts. Thus, they disagreed on all 3 posts and the agreement percentage was 0 for the sexual orientation category. Only coder 2 coded posts under this category. The following posts were coded as sexual orientation by coder 2:

- "A guy just gave me a better bj than a girl. Wow" and
- "Dresses are fantastic. Everybody should wear them no matter their gender. There is no one stopping you from wearing a cute dress except yourself".

Coder 1 may have faced difficulty in coding posts under this category mainly because indicator terms such as "gay", "lesbian" or "straight" which are specific to sexual orientation were not mentioned in the posts. Although the posts contained a hint of sexual orientation it was very subtle. In retrospect the category may seem redundant because the sexual orientation topic can be included in sexual activity easily. Thus, it may have been confusing to coders which category was more suitable for a particular post. For example, coder 1 coded the post "A guy just gave me a better bj than a girl. Wow" as sexual activity rather than sexual orientation.

**4.3.1.4. Mental/emotional health.** Coder 1 coded 23 and coder 2 coded 43 posts under the mental/emotional health category. The coders had to make decisions on 50 posts out of which they agreed only on 18 decisions. Thus, the simple agreement was only 36%. In the pilot study, coder 1 coded 6 and coder 2 coded 8 posts under this category. The coders had to make 8 they decisions out of which they agreed on 6. The simple agreement for the pilot study was 75%.

Following posts were identified under this category by both the coders:

- "Do you have any advice for engineering students? A. It's okay to cry" and
- "I think it is sad how many people post on here or other apps about people they like ect instead of just talking to them, guess the security of not being instantly rejected is comforting"

This may have been because the posts contain indicative terms like "cry", "security", and "sad".

A couple of posts that were coded under the mental/emotional health category but were not agreed on by both the coders are:

- "Learning how to use parenthesis and brackets for set notation in discrete math is why I have trust issues" and
- "The shadows under my eyes are as dark as my soul" were coded under this category but not agreed on.

The first post talks about "trust issues" but it does so in a humorous way. This might have confused the coders, whether it is an actual taboo topic or just a joke. The second post may contain terms that can be related to mental/emotional health such as "shadows" and "dark"; however, the post may come across as dramatic or even humorous because it does not mention a particular problem that the user might be facing. Or the assumption that the possibility of soul being dark is completely fictional.

**4.3.1.5. "Other" taboo topics.** Coder 1 coded 28 posts and coder 2 coded 60 posts as "other" taboo topics that included topics such as politics, religion, sexism, racism, alcohol consumption, and smoking habits. They had to make decisions on 63 posts out of which they agreed on 27, leading to a simple agreement of 42.85%. While, in the pilot study, coder 1 coded 22 posts and coder 2 coded 25 posts as "other" taboo topics. They had to make decisions on 28 posts out of which they agreed on 19, thus, leading to an agreement of 67.85%.

Following are two examples of posts coded under this category by both the coders:

- "Steelman asked who we're voting for… here we go" and
- "I feel like I'm judged whenever I say I'm a Christian because of the hypocrisy these people bring to the name. Please remember were not all like them. I don't preach; I show. I volunteer. I love"

The coders found the former one to be political and the latter religious in nature. The indicative terms are evident in both the posts. In the first post the word "vote" while in the second post the word "Christian" are easily identified by the coders.

Following are examples of posts that were coded under this category by a coder but were not agreed on by the other:

- "Cant help but observe people being annoyed by HvZ but loving the sig chi derby whatever" and
- "Day-after-drinking at Sonic… Can't reach the card reader"

This may have happened because these posts do not contain any obvious indicators. The posts contain subtle hints to taboo topics of politics and alcohol respectively but they are not obvious. Hence, it may have been difficult for the other coder to recognize the taboo topic in the posts.

**4.3.2. Problem Posts.** The coders came across many taboo topic posts; however, they did not agree on many of them. For example, in the pilot study coder 1 coded the post "Who whacked it in the women's bathroom" as sexual activity while coder 2 coded it as a non-sexual bodily function. I speculate this because of the terminology used. The word "whacked" meant different to coder 1 and different to coder 2. Thus, it can be considered as the subjectivity of the word as well as the interpretation of the coder. "'I am not going to drink tonight, I have to be up early' Wakes up in puddle of own vomit" is an example of a post that coders coded into two different categories. Coder 1 coded it as "other" taboo topics because the post refers to alcohol and coder 2 coded it as non-sexual bodily functions because the post refers to vomiting. Although such overlap was rare, coders did face problems with the overall coding process.

**4.3.3. Analysis of "Other" Taboo Topics Category.** The "other" taboo topics category accounts for most of the coded posts. It includes topics such as alcohol, politics, religion, sexism, racism, drug use, gun use, and many similar topics. Out of these topics, most posts were coded because they were related to alcohol. Coder 1 coded 28 posts under the "other" taboo topics category. Out of these 28 posts, 13 (46.42%) were coded because of alcohol-related content. While coder 2 coded a total of 60 posts as "other" taboo topics and 14 (23.33%) of them were coded because of alcohol-related content. Religion was the second highest topic that was coded under this category. Coder 1 coded 8 that is 28.57% and coder 2 coded 11 that is 18.33% religion-related posts under this category respectively. These were the most common topics that can be seen in the "other" taboo topics category. The coders highlighted other topics like sexism, politics and others, but the number is low. Coder 1 coded one post each under the politics and

smoking topics. Coder 2 coded 8 posts under politics, 2 under smoking, 7 under racism, 5 under sexism and 1 under gun control.

**4.3.4. Final Analysis.** I found that although the coders found plenty posts that fit into the defined categories, their agreement on the posts was low. As mentioned before, the coders coded 46% of the corpus as taboo topics, but they agreed on only 30% of the coded posts and assigned them to the same categories. To achieve interrater reliability, the overlap of the coded items by both the coders should exceed 80% (Geisler, 2004). Northcut (2015) in her findings was also not able to achieve interrater reliability. Although the coders were provided with a brief overview of the kind of posts that they would come across, their coding is subjective to their perception of a certain post. Hence, coding posts that are made on an anonymous platform on taboo topics should be analyzed using other methods. The posts on taboo topics make up a considerable portion (in this case, 46%) of a corpus. But categorizing these posts is the real challenge. Further research needs to be done in this area using a different method to analyze the discourse obtained from anonymous social networks. This research is required because technical communicators as experience architects need to facilitate the use of technology by specific users under specific circumstances (Potts, 2014). Hence, the results of a sound analysis of discourse on social networks will help technical communicators to build better systems.

The high agreement on the sexual activity category can be attributed to the clear indication of the post about sexual nature. It was relatively easy for the coders to code posts that were related to the sexual activity category. This can be attributed to reasons like clarity, sensitivity and awareness of the topic between users. Sexual orientation category was the least coded category because of multiple reasons. The coders didn't find many posts that fit into this category, even if they came across such posts, the posts had double meaning. Also, the category was close to the sexual activity category, hence, having two categories that are so close to each other may have caused difficulty for the coders to code.

It can clearly be seen that the coders highlighted almost equal number of posts for few categories, such as the non-sexual bodily functions category. Coder 1 and coder 2 coded 17 and 18 posts under this category respectively however, they agreed only on 10

posts. Thus it can be concluded that the coders found posts that could be counted as taboo topics but the coders' perspectives of the posts or the confusing nature of the posts hindered the simple agreement of the study.

# 5. CONCLUSION

The discourse analysis of the anonymous posts made on Yik Yak sheds light on the usage of anonymous platforms and the nature of posts that users make. The goal of the research was to observe the communication that takes place on one campus through Yik Yak especially with respect to taboo topics. The research provided comprehensive data on taboo topics; however, a more appropriate research method for this kind of research is yet to be determined. Technical communication needs to go beyond the norms of style, form and specifications and study the transactional nature and rhetoric of anonymous social networks.

As we know from Miller (1979) and others, technical communication needs to go beyond the norms of style, form and specifications and study the transactional nature of communication, including the rhetoric of anonymous social networks. Technical communicators help build systems that are usable and functional and this knowledge gained from research studies on social networks will help designer and developers build better platforms. It will also help technical communicators to understand the complexities of different platforms that are enabled by technology for user experience. Discourse analysis as a method helps to show the intersections of communication, language, topics, and technology. This study is a good example of an experiential approach to technical communication research, as it is not rooted in positivism, but rather in emerging technologies that are dynamic and unstable, yet impactful for those who participate in them.

Calculating interrater reliability may not be suitable for discourse analysis of this type. For example, in the pilot study, coder 1 coded 6 posts and coder 2 coded 8 posts under the mental/emotional health category. They agreed on 6 decisions out of the 8 that they had to make, which may seem like a high agreement rate but is not enough to derive an acceptable interrater reliability. A different type of discourse analysis should be conducted for future studies.

Training coders with respect to the number of posts, types of posts, types of categories, campus culture, or phrase structure would be a better approach. Training can

be provided to coders until desired level of agreement is reached. If there is a more wide range of categories it will provide coders with multiple options to code the data into and may help the interrater reliability. A different kind of corpus would help too. A corpus collected through API or with a certain criterion may serve as a better data set. For example, collecting posts related to sexual activity and then narrowing it down to topics discussed under sexual activity may be a rational approach. Sexual activity could be broken down to subcategories that contain a particular indicative term such as "masturbation", "naked", "sex", or "dick". Coders can be trained on the terms that they might come across. For example, in this study, one of the coders did not know the meaning of the term "whacking". Although the coder is an American, born and raised in Missouri the term "whacking" was new to her. This would make it easier for the coders to identify the posts. Thus, this approach would be a balance between a keyword search and coder subjectivity. Collecting data from different campuses or collecting a larger number of posts might help improve the interrater reliability. I believe that a better understanding of the campus culture will also help achieve better results because it will help coders understand the idioms, the norms, and the dialect of general users on campus. For example, in this study, under the taboo topics category, the highest number of posts were related to alcohol and religion. This may have happened because I collected the screenshots during the St. Pats break and Easter, which are associated with partying on campus. If coders are conscious of such events and happenings on campus, it will make it easier for them to understand the context of the posts and code accordingly.

The number of posts that were highlighted as taboo topics in the pilot and the large study was high which indicates the patterns in communication on anonymous platforms. In the pilot study the coders coded 67.85% of the posts as taboo topics; however, the percentage of simple agreement was less than 80% on 3 of the 5 categories. Similarly, in the larger study the coders coded 46.21% of the posts as taboo topics but no simple agreement was achieved on any of the categories. Users post about taboo topics and they do it frequently. The screenshots that were collected for this study spanned a month. Users posted about taboo topics throughout the month. It was not a coincidence or an episodic event; it was a daily occurrence. Positive aspects of anonymous posts can be seen, for example, when users post about their physical and mental well-being and

apprehensions. Users are honest about their opinions and interact freely with peers. Thus, it can be seen that anonymity, ephemerality, and geo-location create a unique platform for users. Technical communicators should certainly study such communication.

The simple agreement was highest for the sexual activity category, because many posts contained indicative terms that could have been coded as sexual activity. Thus, it should be noted that narrowing down to one particular topic is also a good idea for future studies. The least agreement was on the sexual orientation category which can be attributed to lack of indicative terms and the fact that it is closely related to the sexual activity category. It would be prudent to have categories that are not closely related to one another. And some categories like the mental/emotional health are difficult to code. Coders may or may not be able to read between the lines and misinterpret a post. The following posts are an example of misinterpreted posts:

- "Always laminate your flash cards for studying. They won't smear, and the tears actually roll right off"
- "Sometimes during finals week you just need to take a page out of Elsa's book and 'Fuck it all, fuck it all, don't give a shit anymore"

Unless the coder is trained in the field of psychology or education, he or she would not be able to grasp the entire meaning of the posts. Both the posts may reflect emotional upheaval but are written in a humorous manner. Coders would be confused whether these posts fit into the mental/emotional health category or not. Hence, it is necessary to create categories that are easy to code and the posts that are coded under the category have single meaning.

Another approach could be to use three coders instead of two. The third coder could act as a mediator or trainer for the disagreements that took place between the first two coders. The third coder can be a highly trained individual who has in-depth knowledge of the defined categories and is an expert of the app. It may also happen that the third vote may or not be in favor of either of the decisions made by the first two coders and giving rise to division rather than consolidation. Moreover, the probability of two people agreeing on a decision is more than all three people agreeing on a decision.

I also observed that some topics may not be as taboo as other topics. For example, drinking alcohol in moderation may not be considered as a taboo. It is taboo only when

the alcohol consumption is excessive and a severe addiction. Thus, it is necessary to define the categories in-depth and train the coders on the different posts that they may come across about the topic. It is necessary to differentiate the types that may occur under a particular topics so that all coders are on the same page. In the corpus used for this study many posts related to alcohol consumption but not all of them were considered as a taboo by the coders. Some posts referred to consumption of alcohol in a funny way but the user did not actually confess to consumption of alcohol. In some posts the users talk about hangovers and after-drinking effects, these posts cannot be considered as a taboo because the user is not actually committing the act but more so has already committed the act or observed someone else do the act. The following examples were highlighted by coder 2 as "other" taboo topics but were not agreed on by coder 1. Although the posts talk about alcohol, coder 1 may have not considered them as taboo.

- "Dear Miner Village rooster at 5:30am. Go fuck yourself. It's Sunday I need my drunk sleep" and
- "Yik Yak was calm tonight, I guess the lack of GDI party left enough people sober so we didn't get any drunk yaks"

Yik Yak cannot be compared to other popular social networks like Facebook or Twitter, but the posts made on all the three networks are be compared. Some users assume anonymity on non-anonymous platforms like Facebook and Twitter by creating a pseudo profile that may or may not represent them. Posts made through these profiles can be compared to the posts made on Yik Yak thus opening another avenue of research. The study conducted by Fox, Cruz, and Lee was based on users sharing content anonymously on Twitter through anonymous profiles. Birnholtz, Merola, and Paul studied posts made anonymously on college Facebook groups. Potentially, the posts made on the different social networks can be studied if the features like anonymity and geolocation are considered.

This study is certainly not the comprehensive answer to what users do with Yik Yak, but it most certainly is a contribution to the growing body of evidence about how Yik Yak functions in the social web of a university campus. Improvements can be made in the number of posts studied, the locations, and the method for coding the posts. A larger number of posts from different campuses should be studied to see whether prior

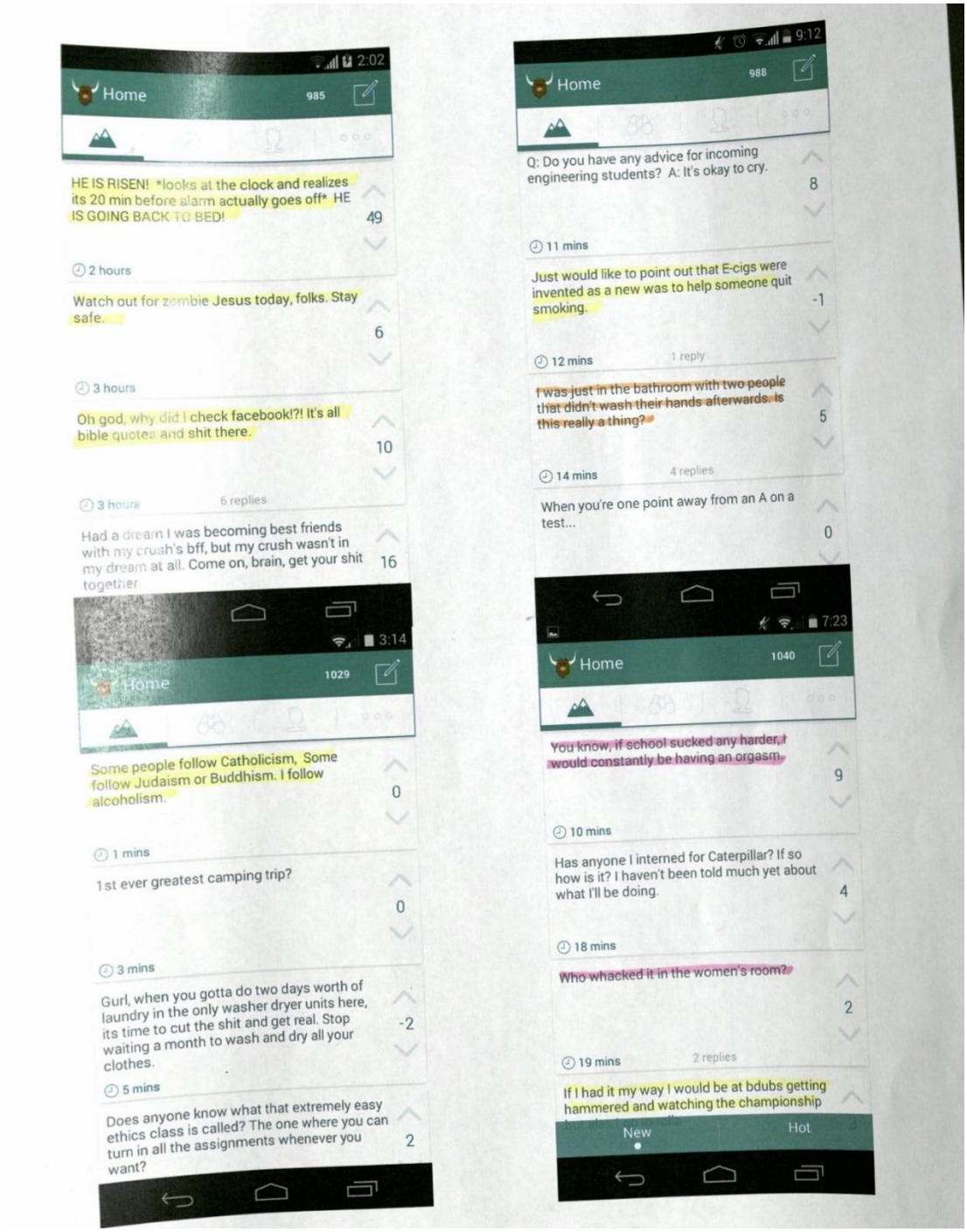
results are comparable. Posts collected over a month were analyzed for this study; it would be interesting to see if posts collected over a longer period of time generate similar results. This study only focused on one location, the Missouri S&T campus. Future studies should consider comparing results of different campuses or increase the location-radius for collecting the posts. It would be interesting to know if multiple locations show similar patterns in communication happening on anonymous platforms. Lastly, a different coding system needs to be identified for the discourse analysis. Future researchers should seek rigorous coding protocols that lead to greater interrater reliability than found in this study and in Northcut (2015).

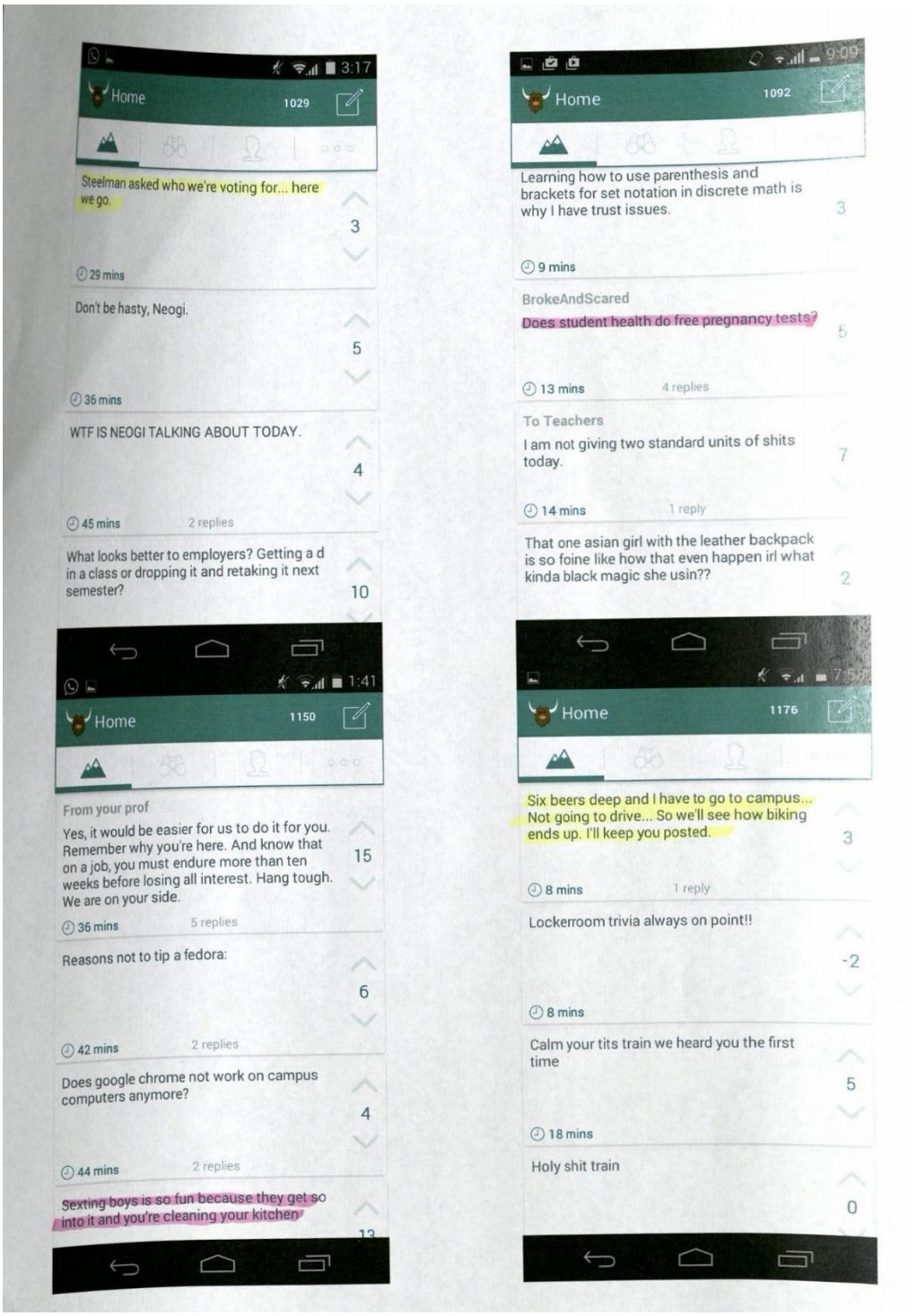
This research study attempted to answer the following research questions: How are anonymous, location-centered apps used by students on campus? And what patterns can be seen in taboo topic postings on one campus? It is seen from the results of the study that students use the app to convey their thoughts and expressions, many pertaining to taboo topics. And taboo topic postings are clearly existent and frequent. This information has a two-fold benefit. One, technical communicators can better understand the role of anonymity, geo-location and ephemerality. These features are attractive to users and having a thorough understanding of these features will help technical communicators build better systems and understand such transactional communication in a better manner. Two, universities are workplaces to many technical communicators; thus, we should strive for better understanding of the culture and the interactions of students on such platforms.

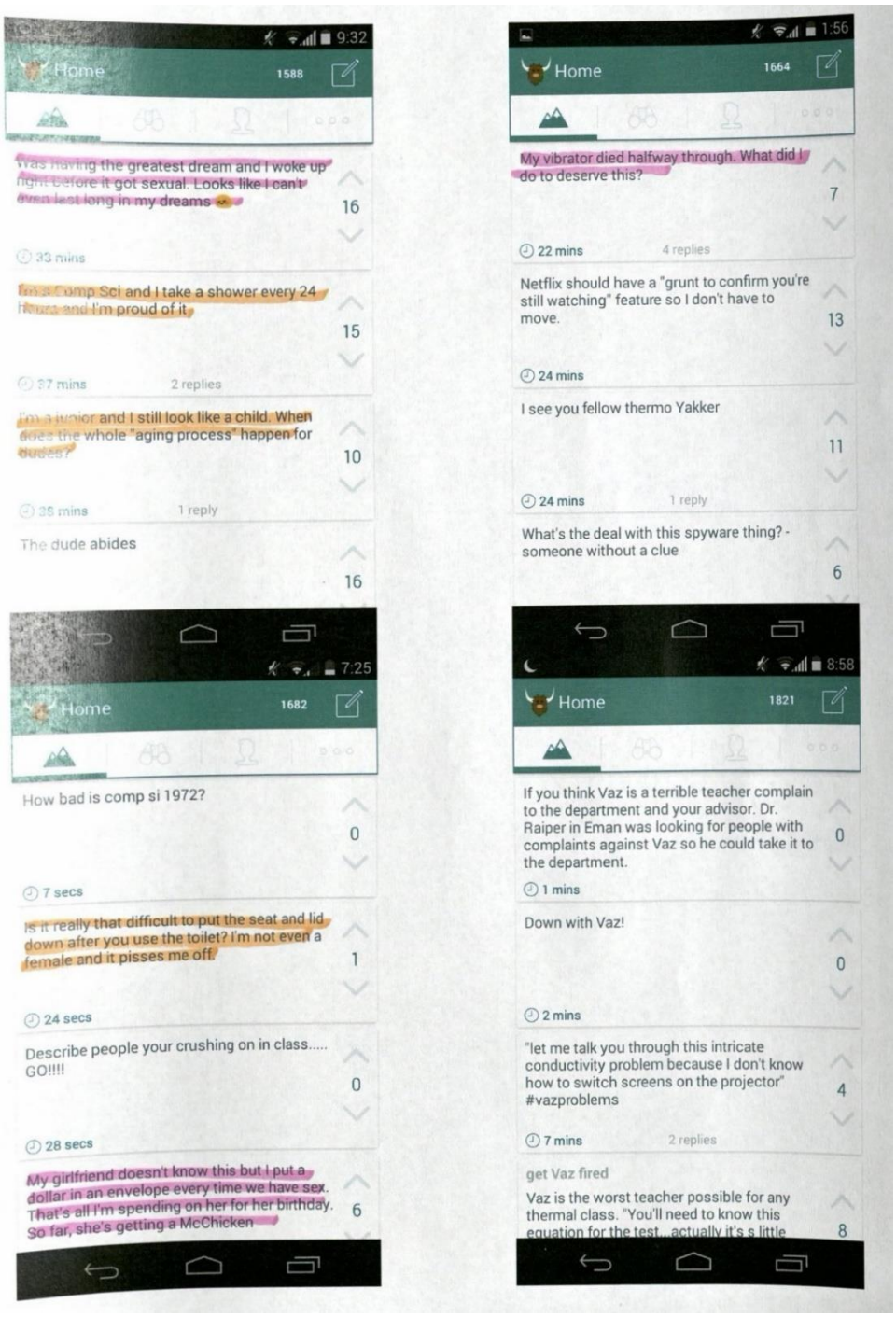
**APPENDIX A**

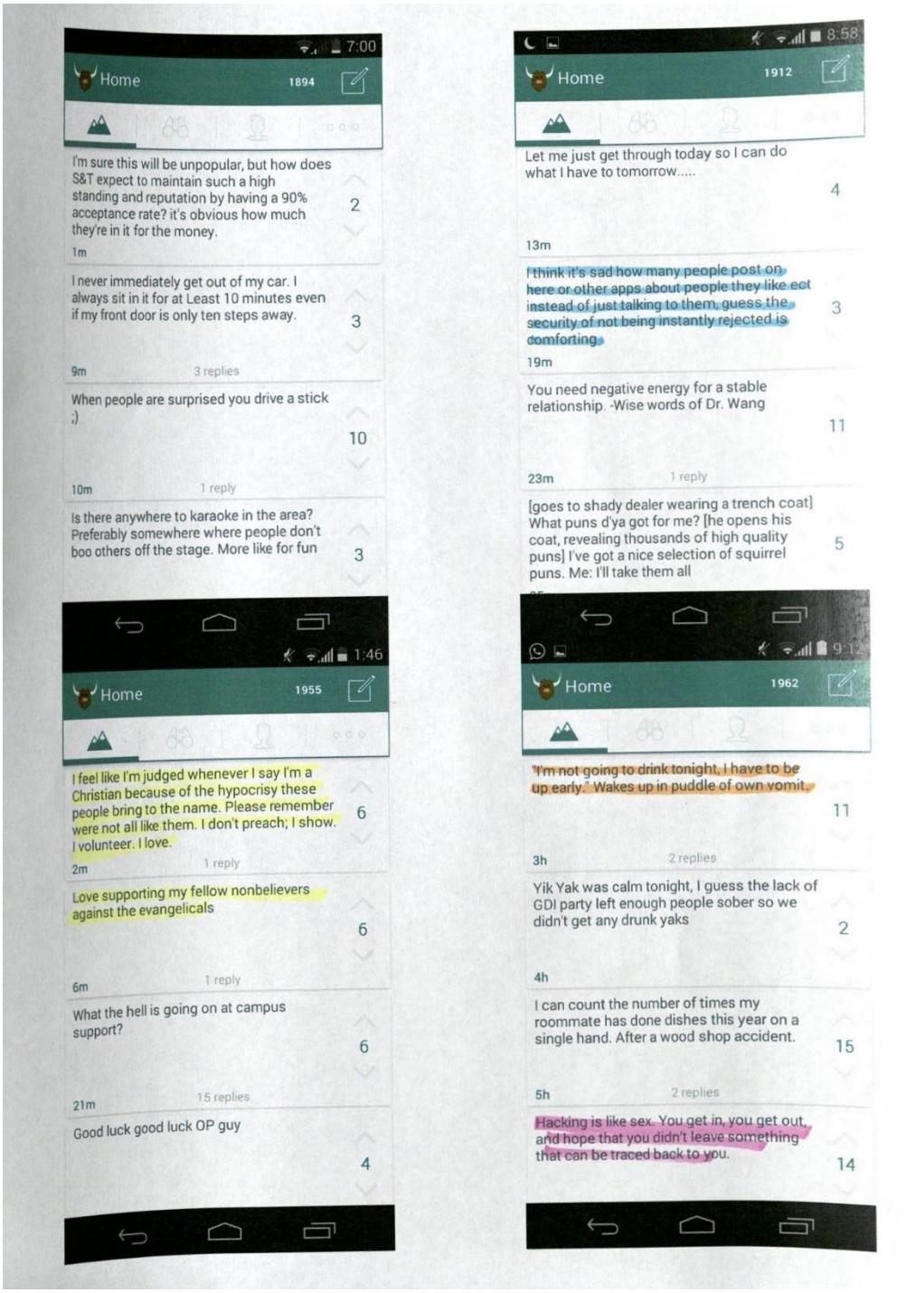
**PILOT STUDY RESULTS**

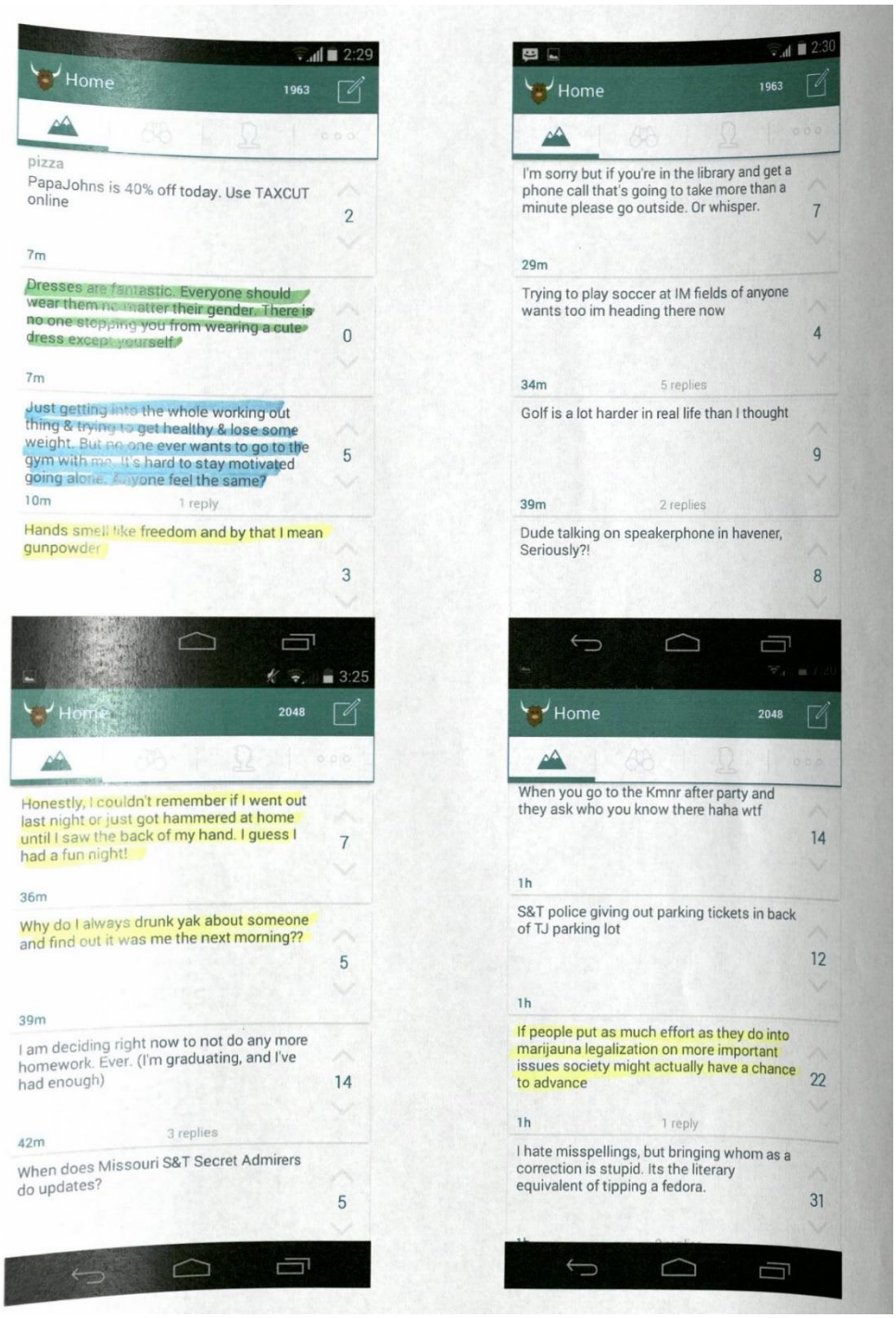
A – PILOT STUDY CODER 1

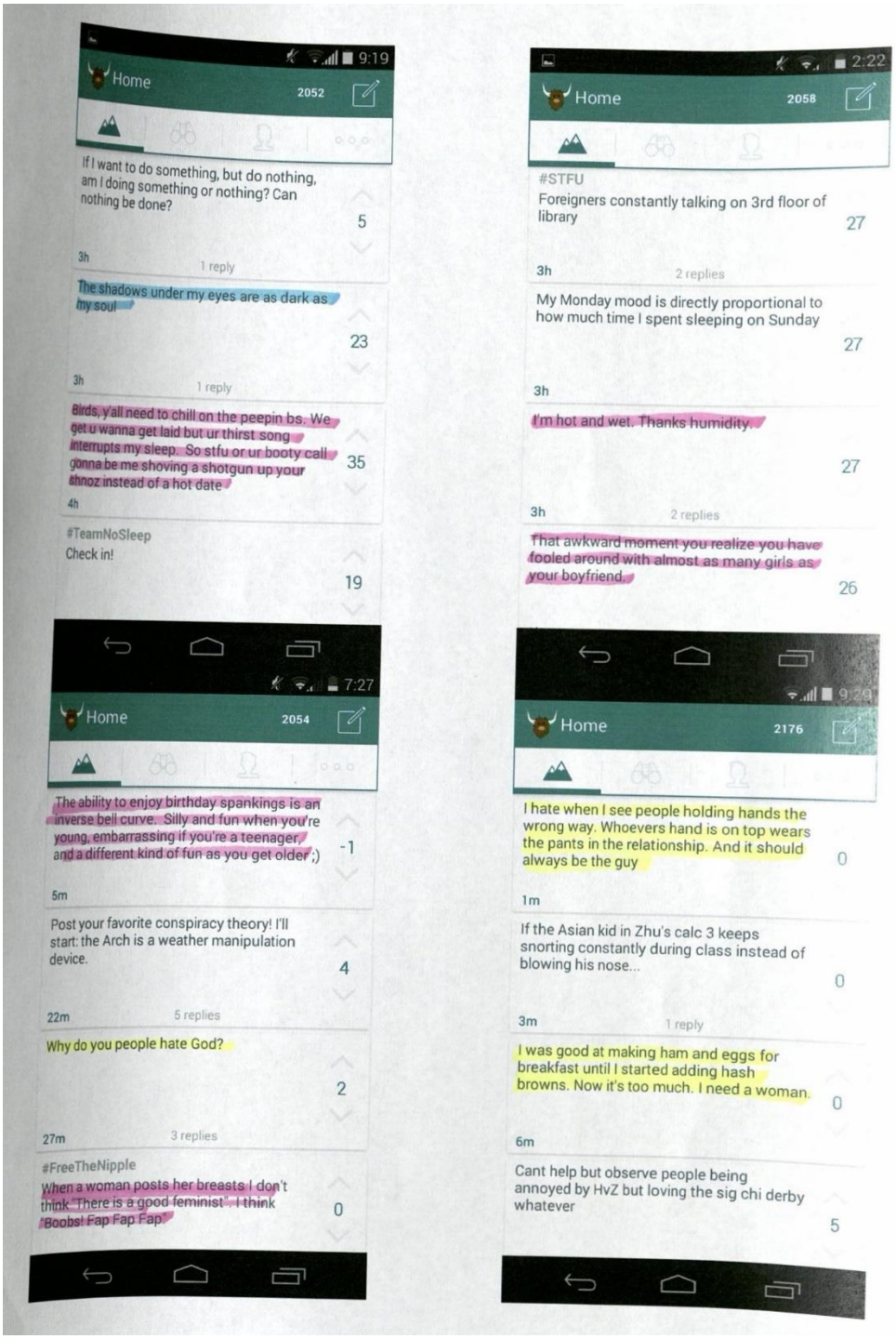


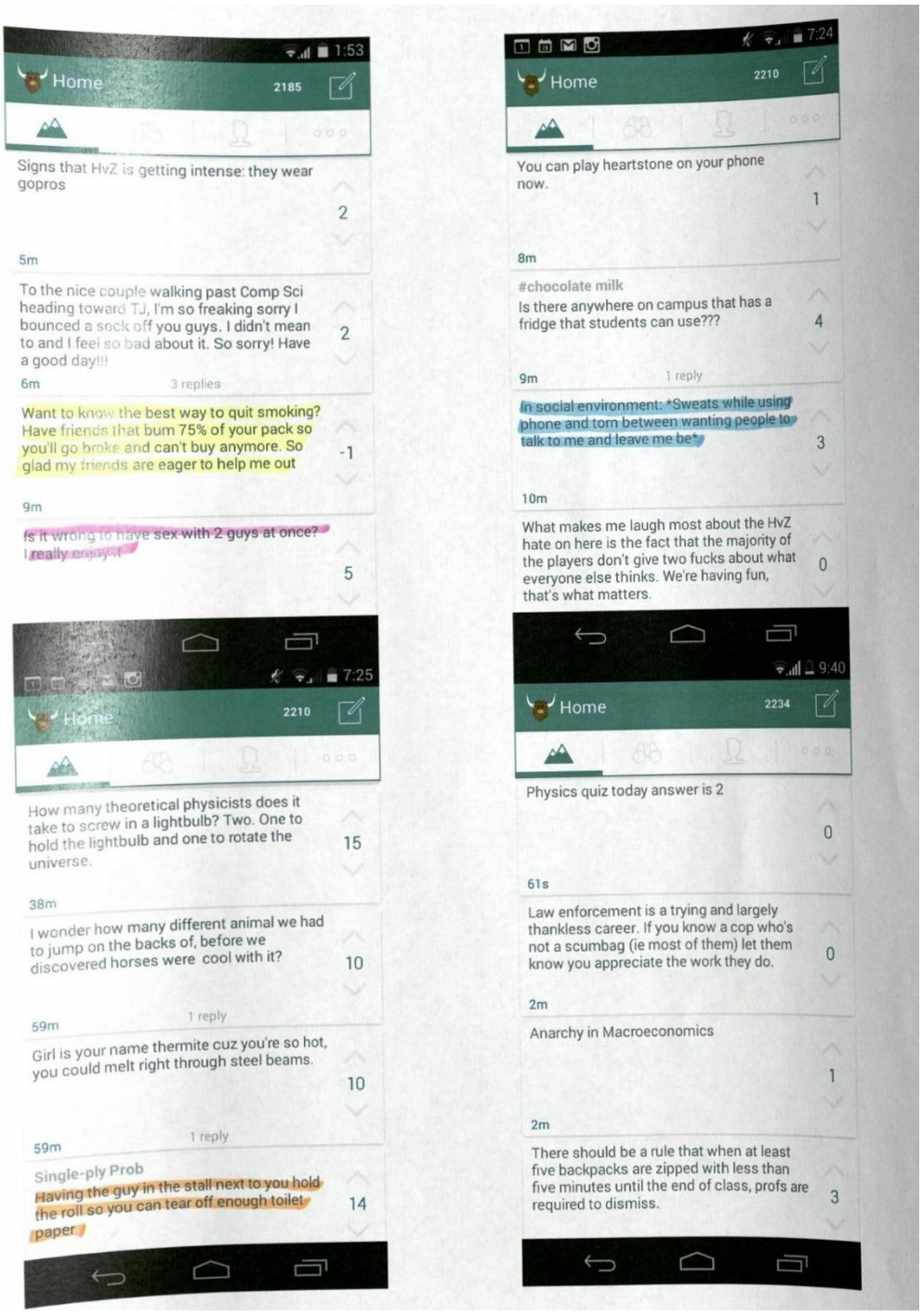


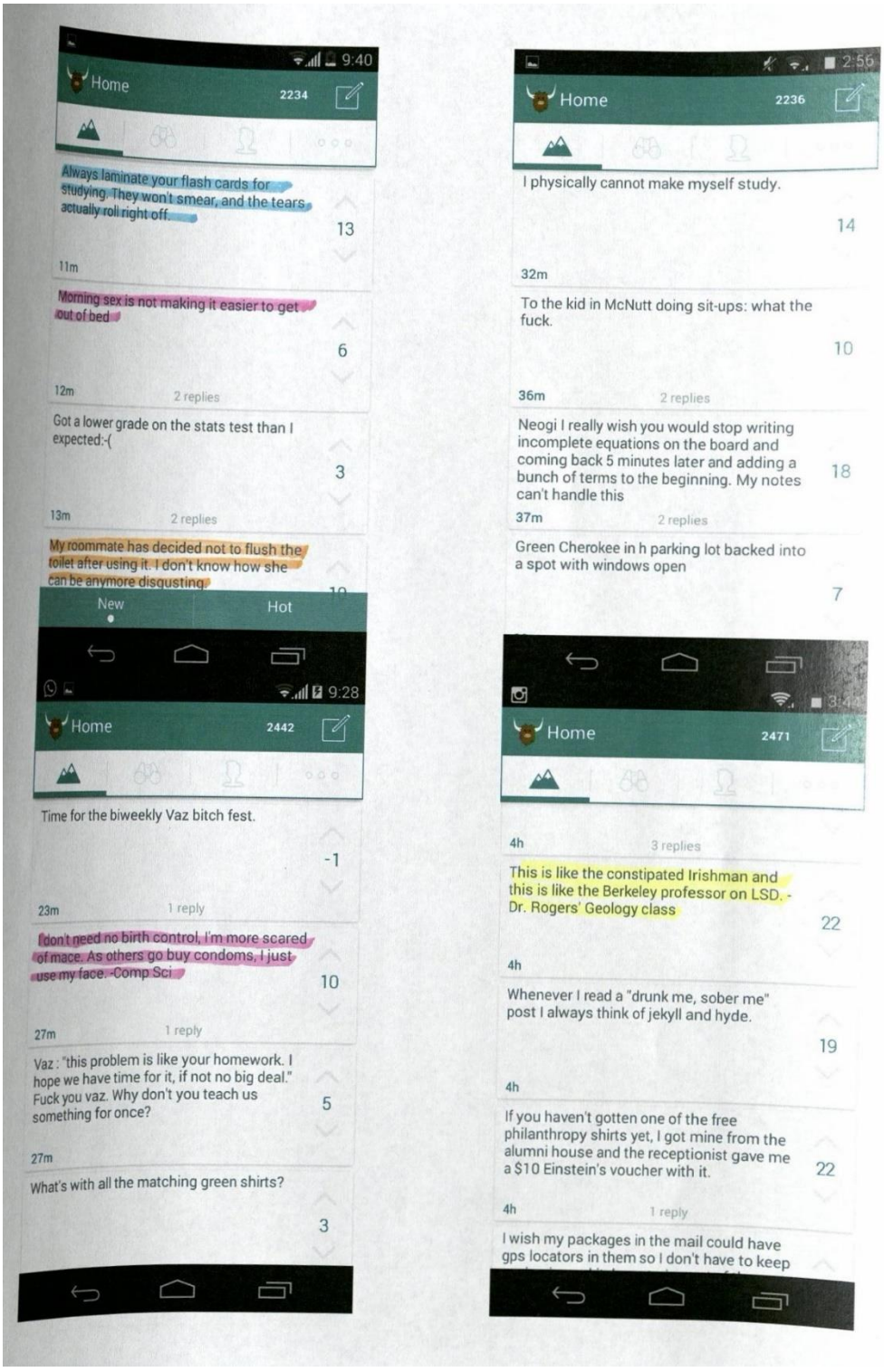


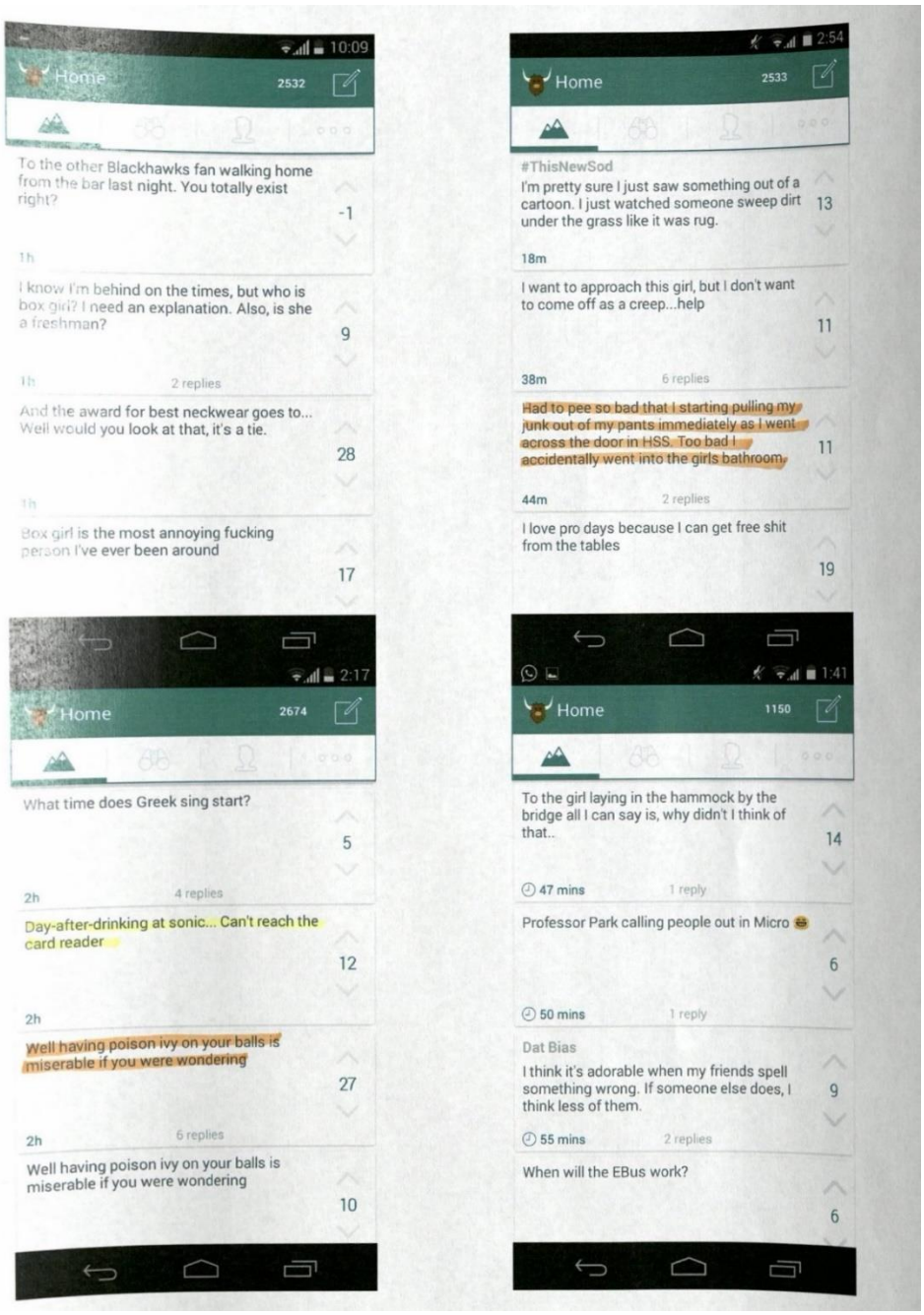


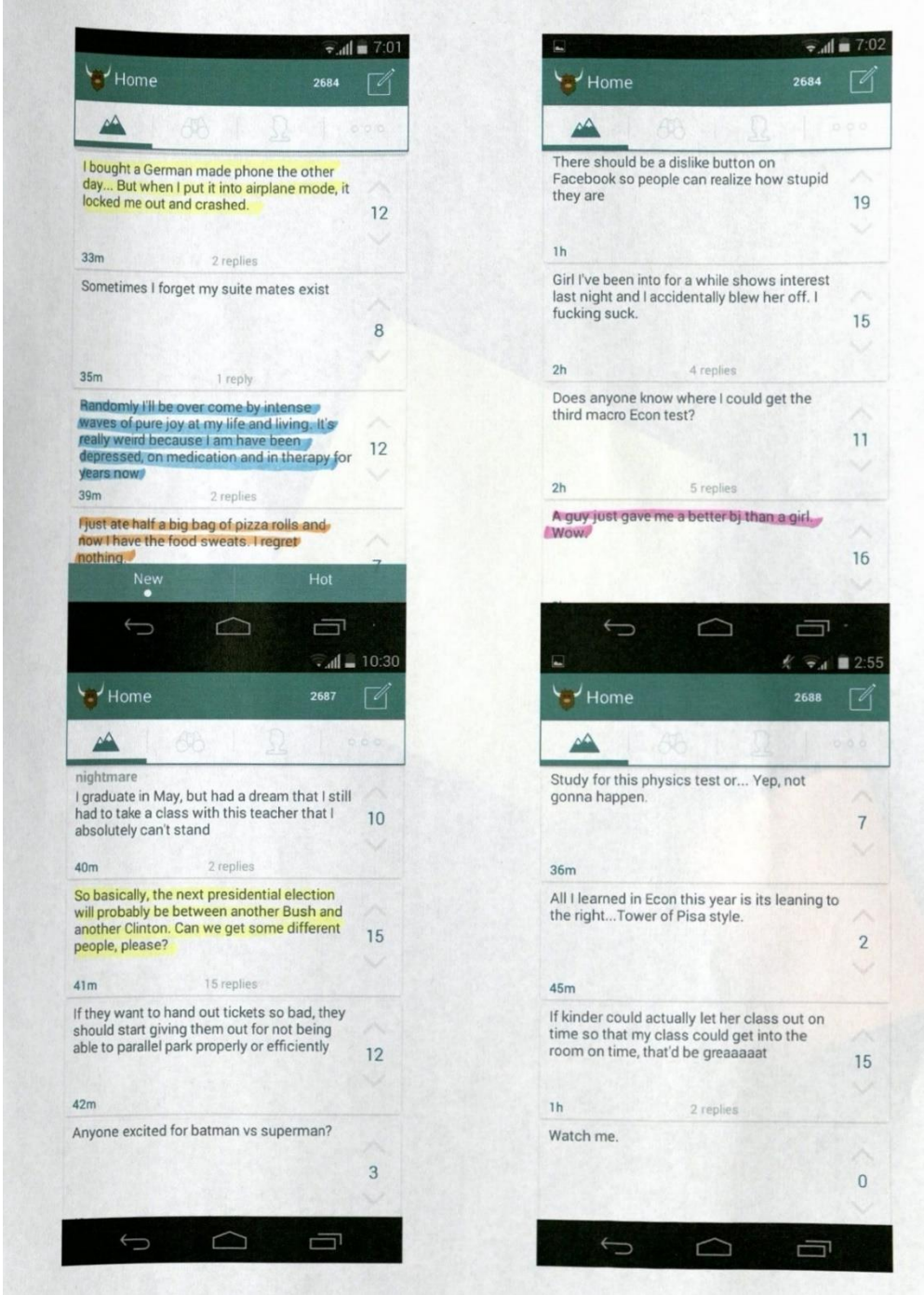




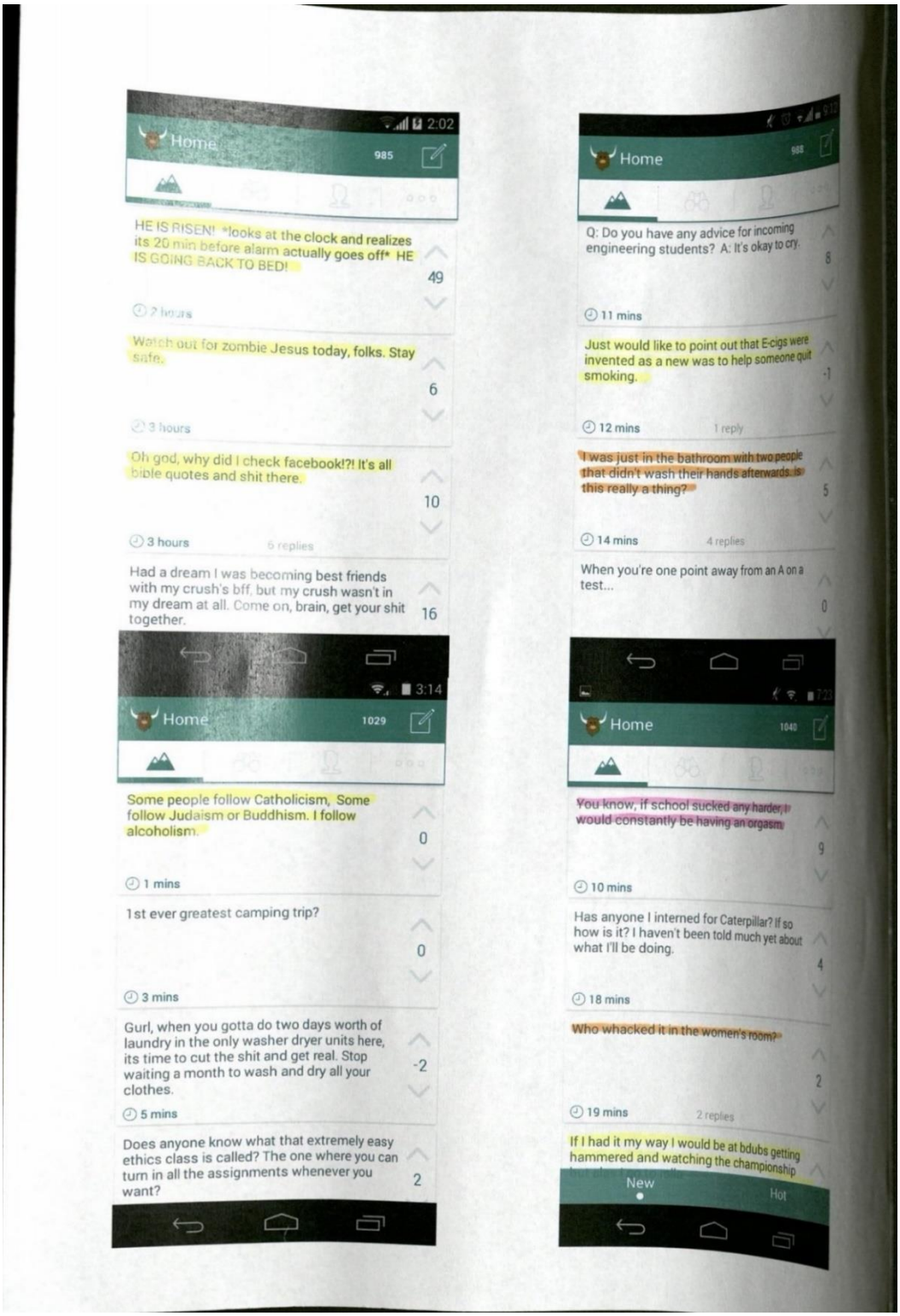


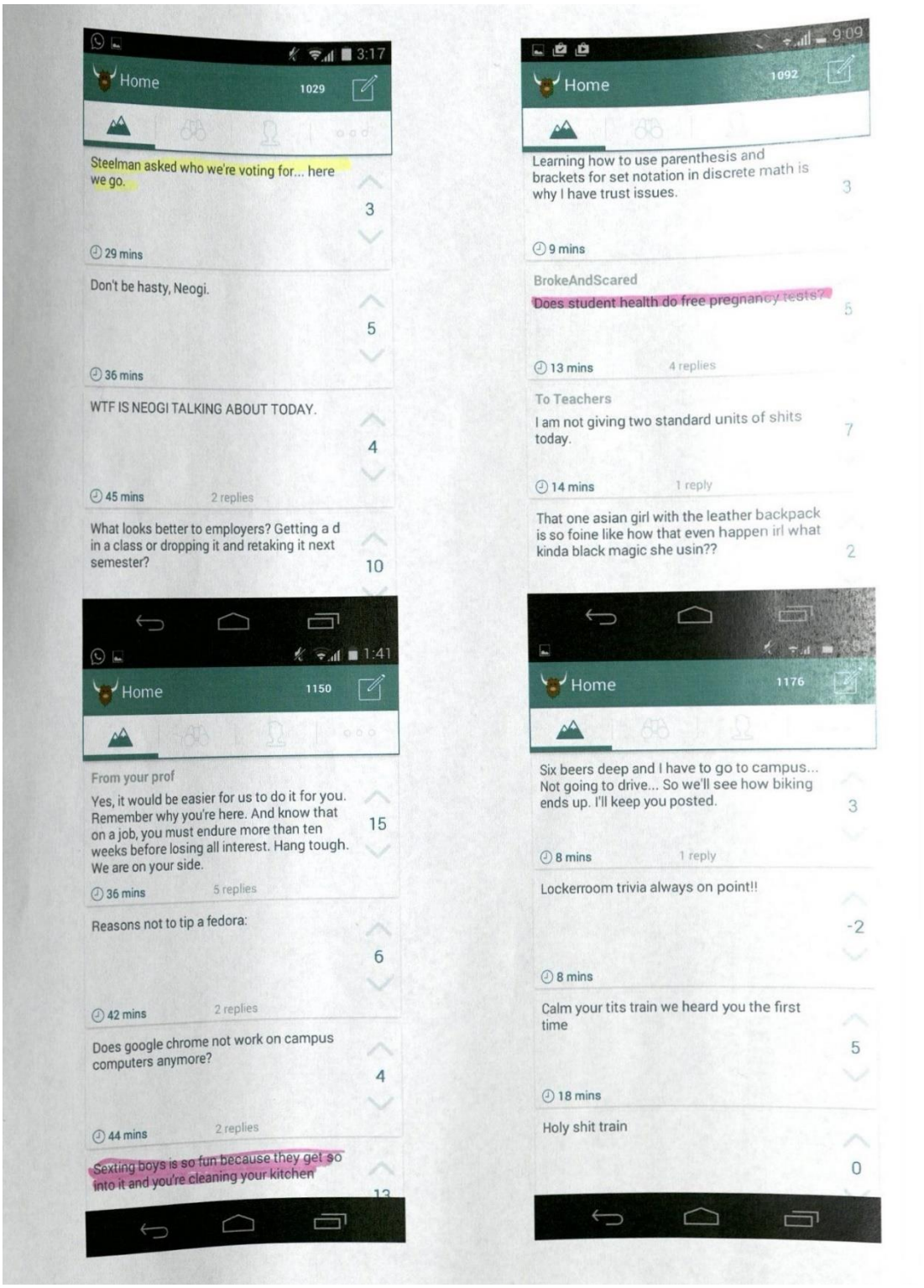


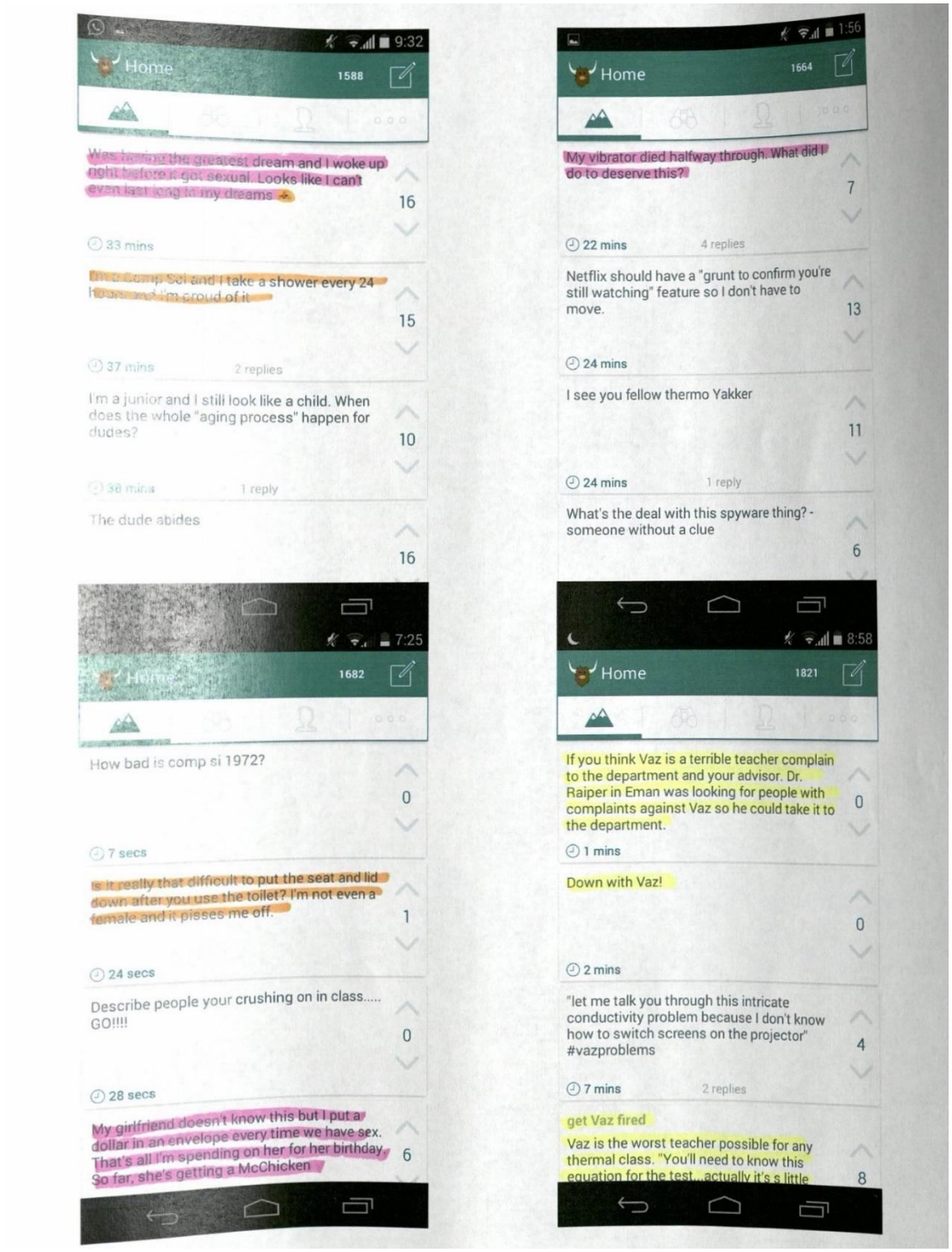


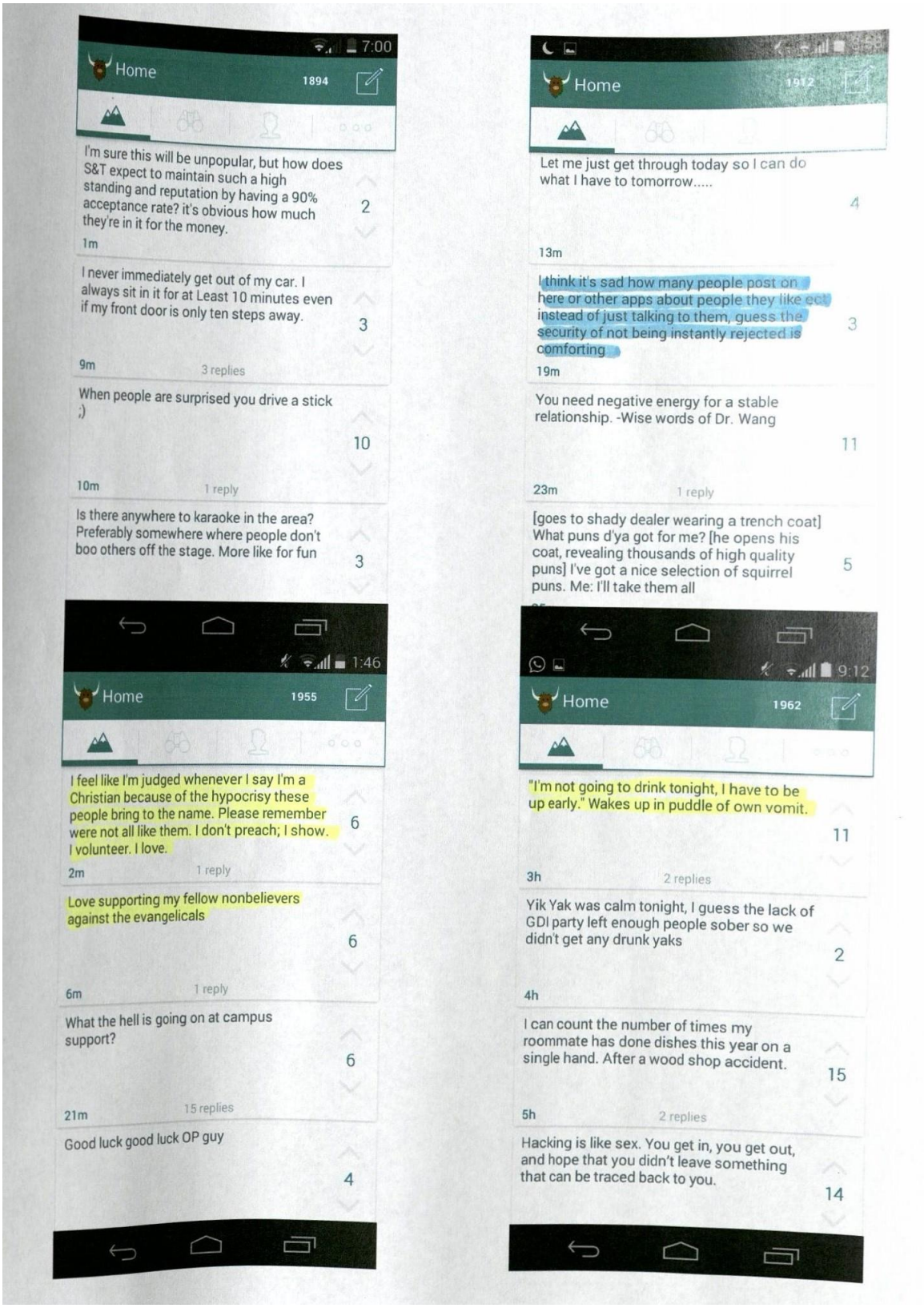


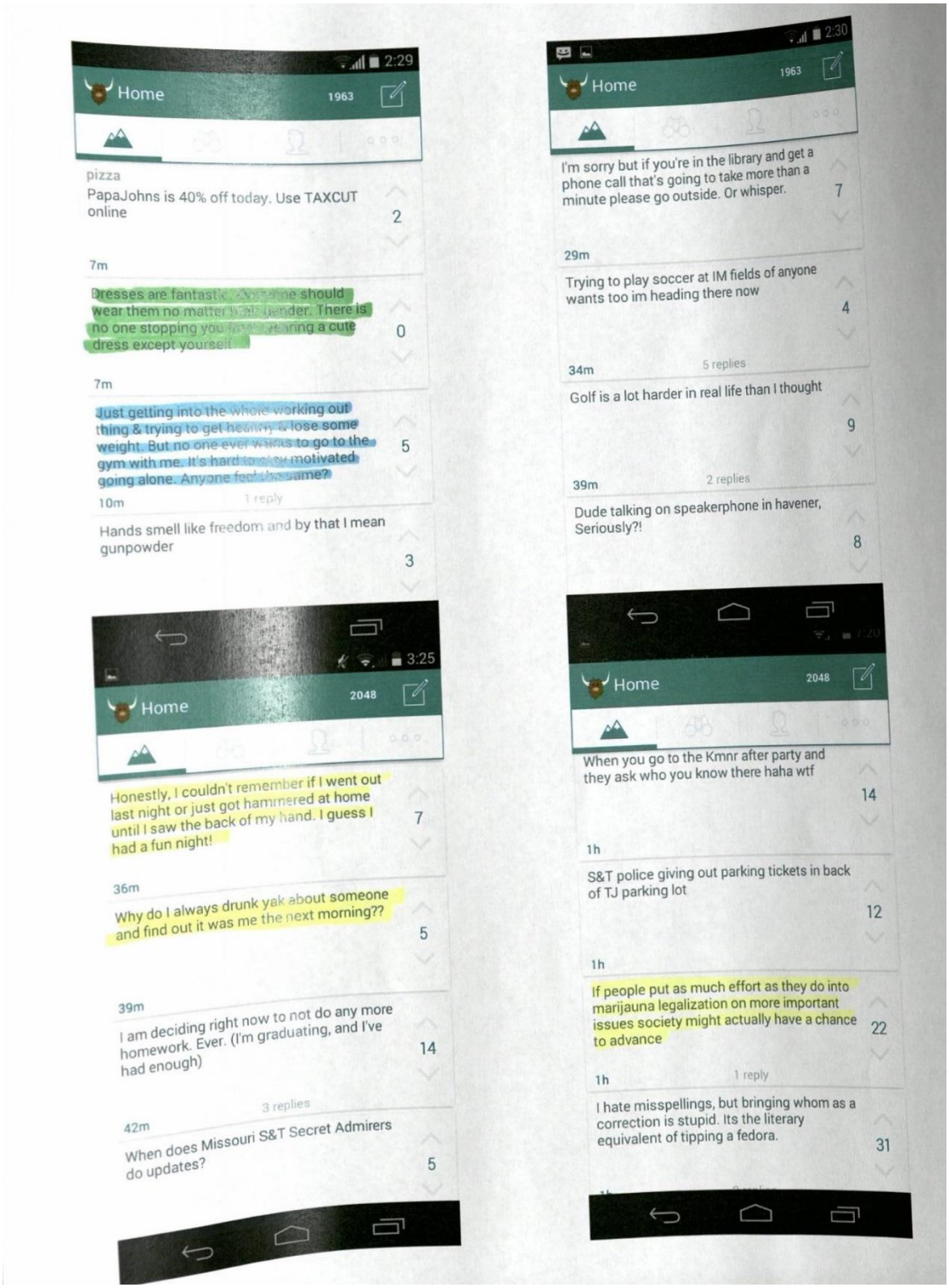
B – PILOT STUDY CODER 2

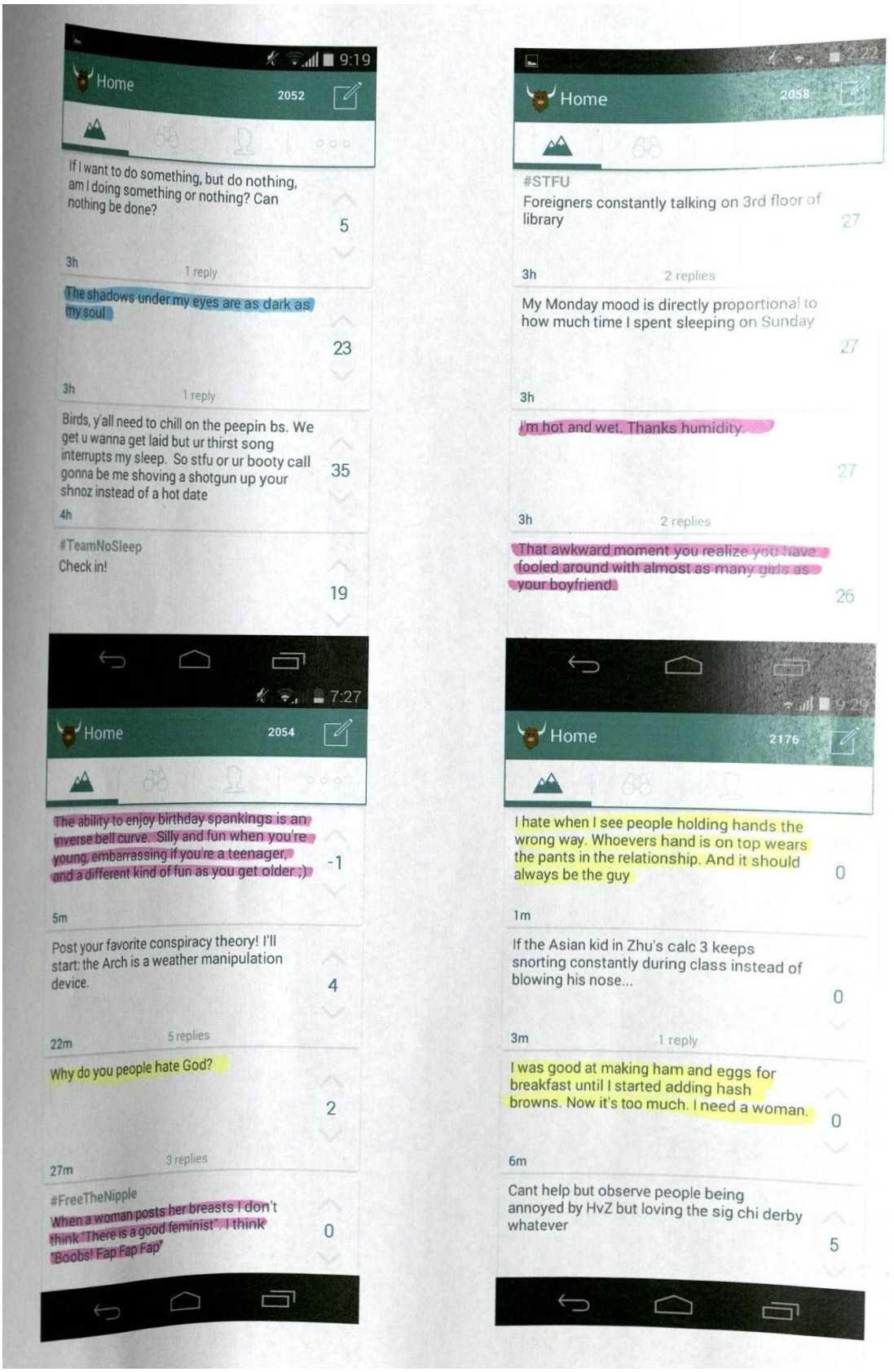


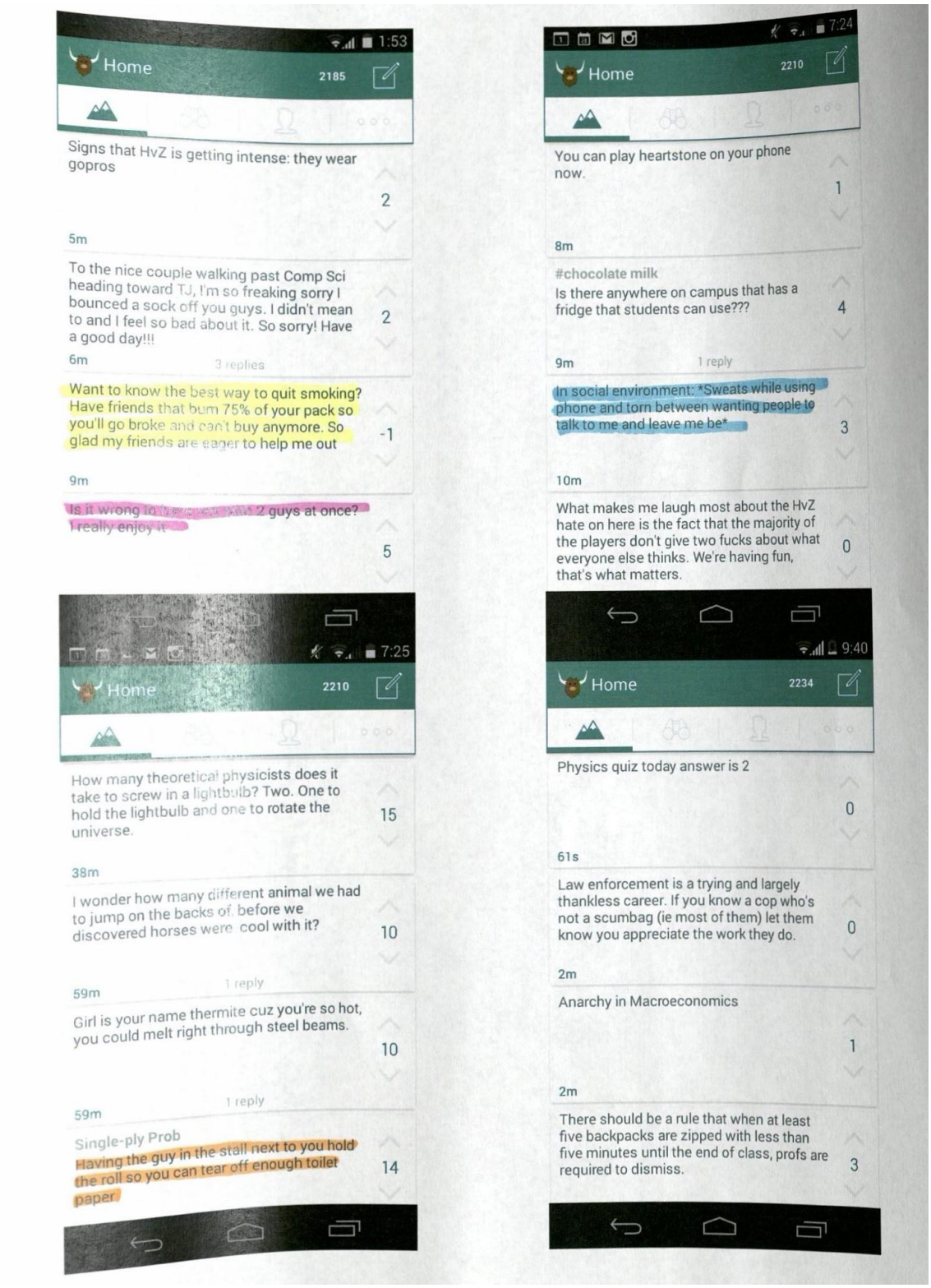


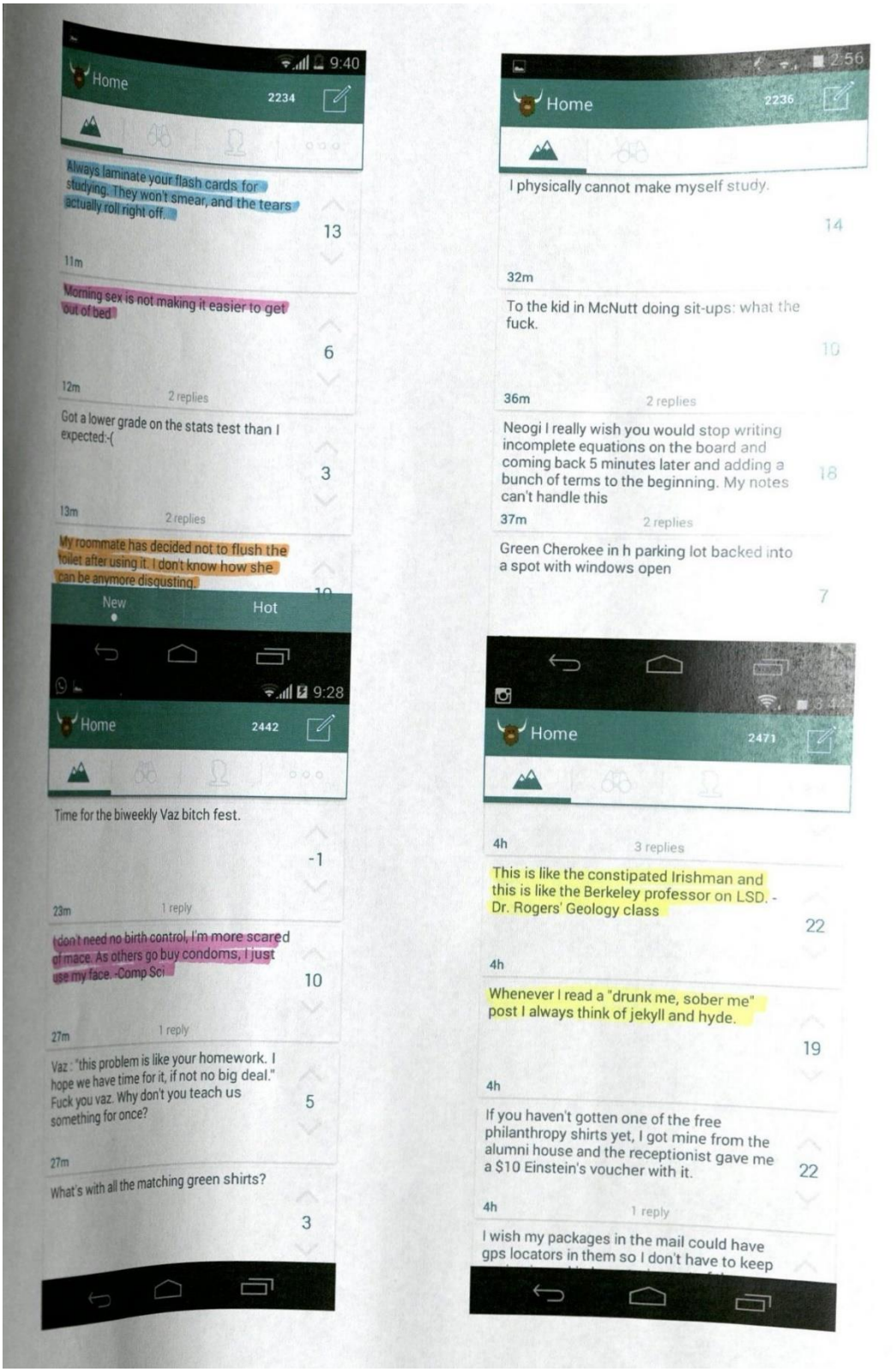


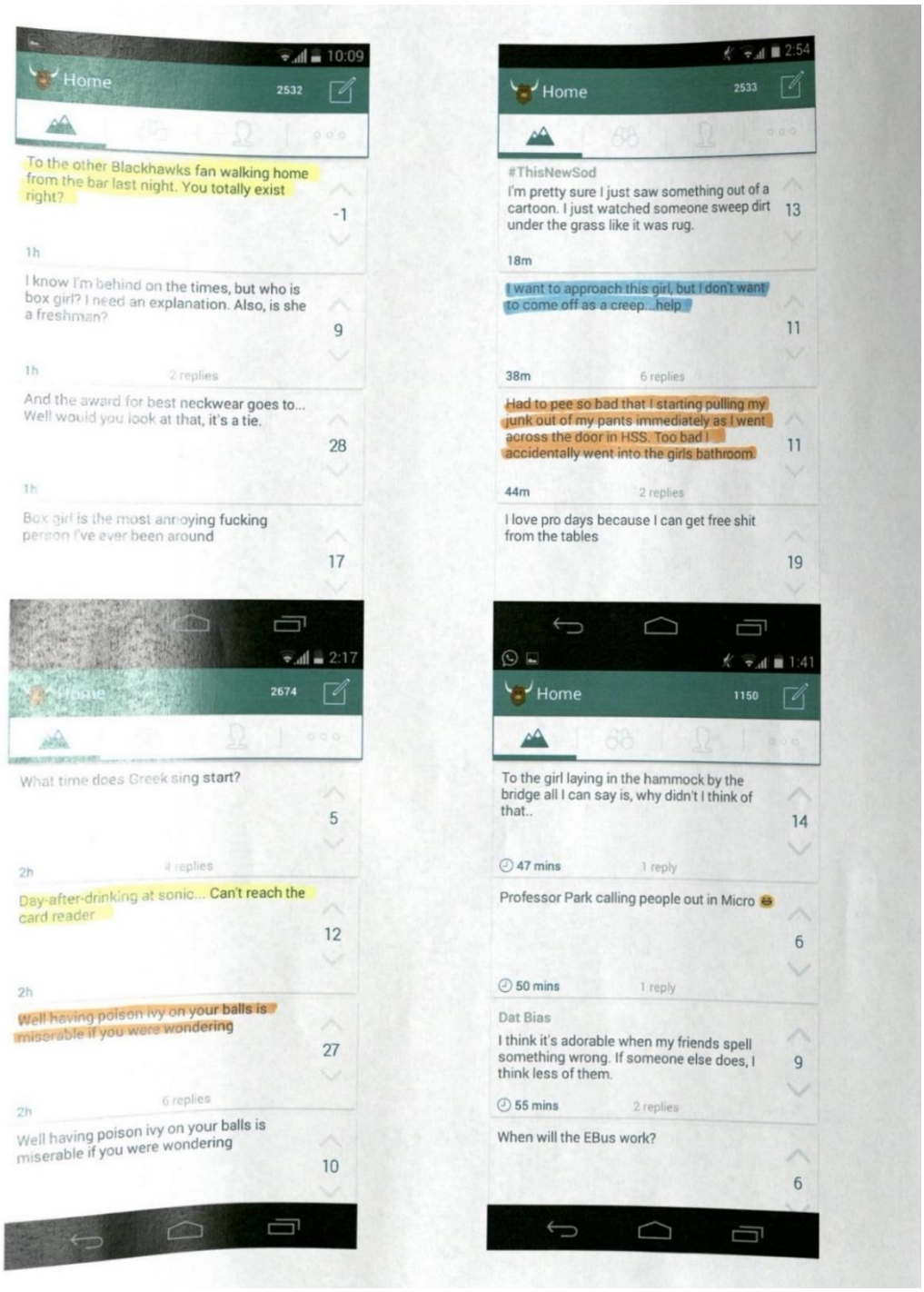


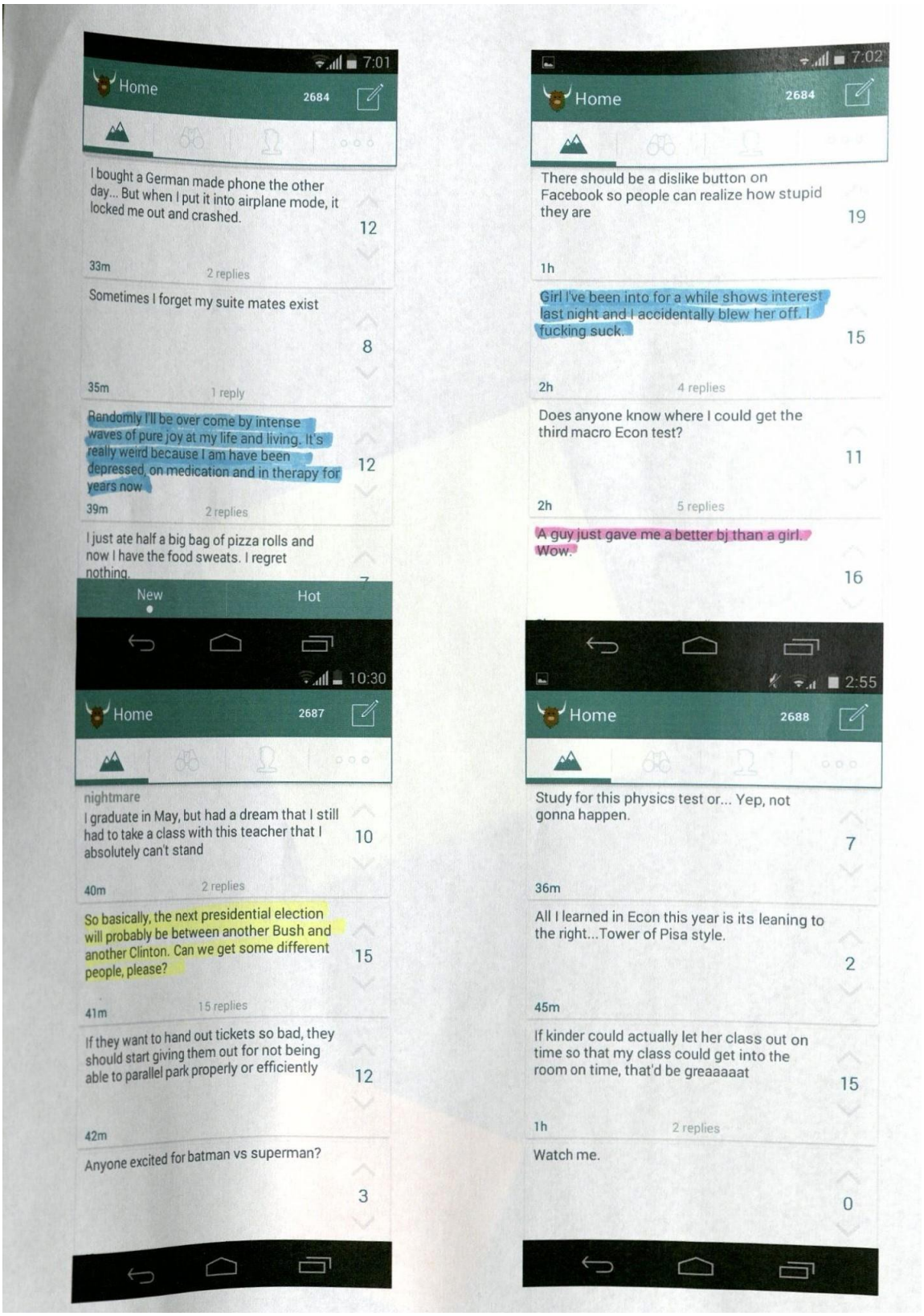












**APPENDIX B**

**SCRIPT USED FOR BRIEFING CODERS**

A - SCRIPT

First I would like to introduce myself. My name is Snehal, I am a graduate student in technical communication. As you know, Yik Yak is my thesis topic and to be precise, I am trying to determine the types of topics that people talk about on Yik Yak, especially owing to its anonymity. I thank you for helping me out with my research. You will be considered as a research assistant recruited specially for this task.

Although you have used the app, I would like to give a brief overview of Yik Yak. It is an anonymous, location-based app which is available on Android and Apple smartphones. It is mostly used on campuses by students and others to share what's on their minds anonymously. The posts are ephemeral and get auto-deleted after some time. There are options for users to vote on posts that they like and downvote posts that they do not approve of. Users earn points (called as Yakarma) when they write posts (called as yaks) or when they vote on posts. If a post receives more than five downvotes, it is auto-deleted.

Today we will be categorizing the posts made on Yik Yak by anonymous users. This process is called coding in research terms. It is a research method used for analysis of text. I will be providing you with the posts that you need to sort as well as the categories that you need to use while you are sorting the posts. I took screenshots of the posts over the period of one month, morning, noon and night and collected 90 screenshots. Each screenshot contains approximately four posts. I have printed the screenshots on paper for the convenience of coding the posts.

The categories are in-line with something called as taboo topics. For this study, taboo topics are topics that one would usually not talk freely about if they were to be identified or in a face-to-face conversation. In other words, these are topics which people shy away from but due to Yik Yak's anonymity, they are emboldened and they talk about these topics.

First I would like to explain the categories to you. I chose five categories sexual activity, non-sexual bodily functions, sexual orientation, emotional/mental health and "other" taboo topics. I will explain each category in detail. Each category is not limited to the topics that I mention. There may be other topics that you may come across in the posts that you may fit into one of the categories, please feel free to do so. But please

remember, you can code one post to only one category. Even though a post may fit into two categories, please code it to the one that matches most closely. The sexual activity category consists of but is not limited to taboo topics like sex, sex out of wedlock, fetishes, kinks, masturbation, sexual bondage, dominance and submission and other such topics. The non-sexual bodily functions category consists of topics like urination, defecating, vomiting, illness and other such topics. The sexual orientation category consists of gay, straight, lesbian, transgender and bisexual topics. Emotional and mental health category consists of topics like suicide, rape, sexual harassment, family problems, mental disorders, psychological problems, depression, crying/having a bad time and other such topics. Lastly, the "other" taboo topics category consists of smoking, vaping, drugs and marijuana use, religion, politics, racism, alcohol consumption, guns, sexism and other such topics.

In front of you, you will find a set of printouts, these are the prints of the screenshots that I collected. Please read through each and every post and highlight it with the color which has been assigned to that particular category. I have assigned different highlighters to the different categories. Sexual activity needs to be coded with a pink highlighter, non-sexual bodily functions with orange, sexual orientation with green, mental/emotional health with blue and "other" taboo topics is to be highlighted with yellow. To make this simple, I have a printout of the category and the corresponding color for your reference.

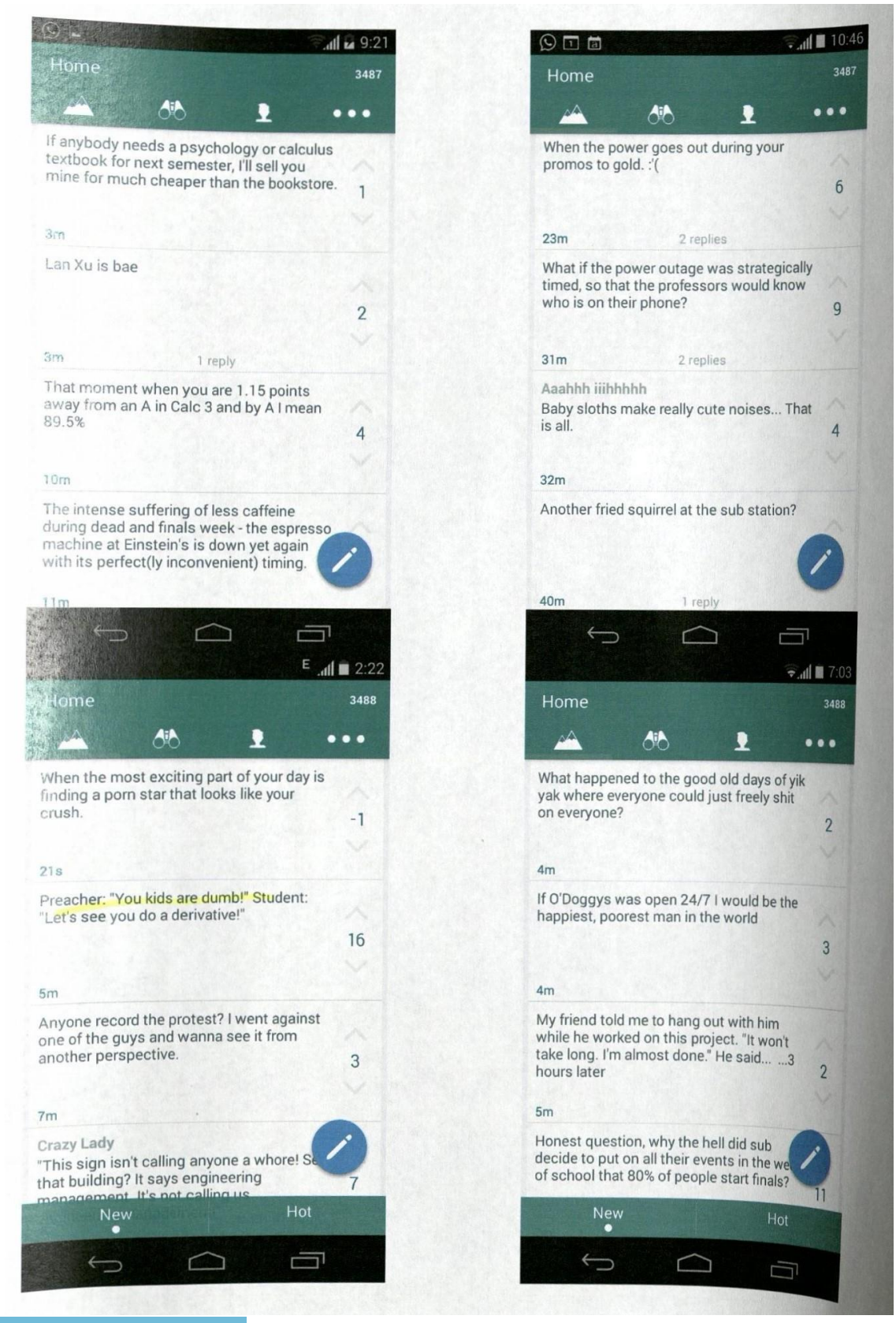
B - COLOR KEY

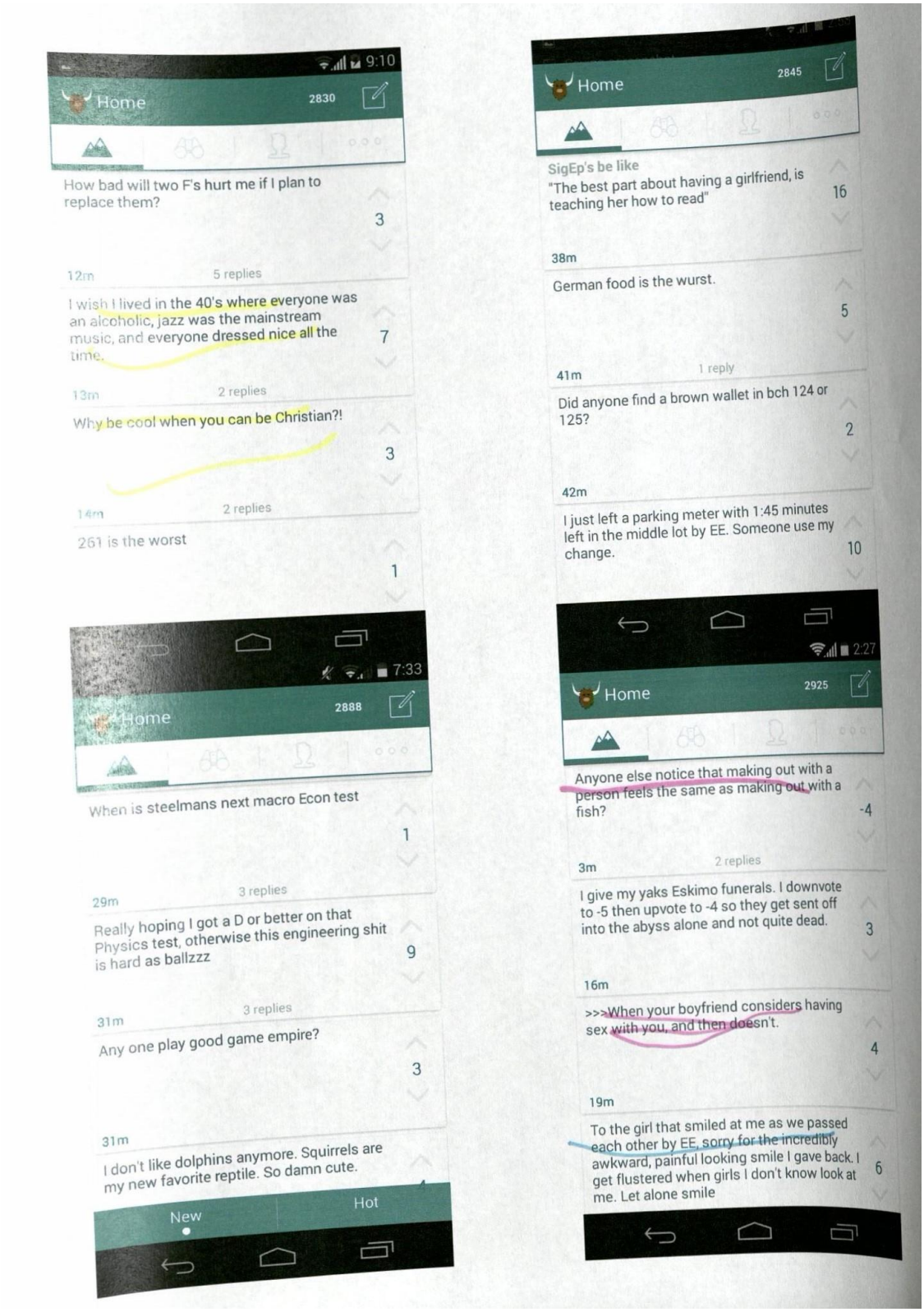
| | |
|---|---|
| Sexual activity | Pink |
| Non-sexual bodily functions | Orange |
| Sexual orientation | Green |
| Mental/emotional health | Blue |
| “Other” taboo topics | Yellow |

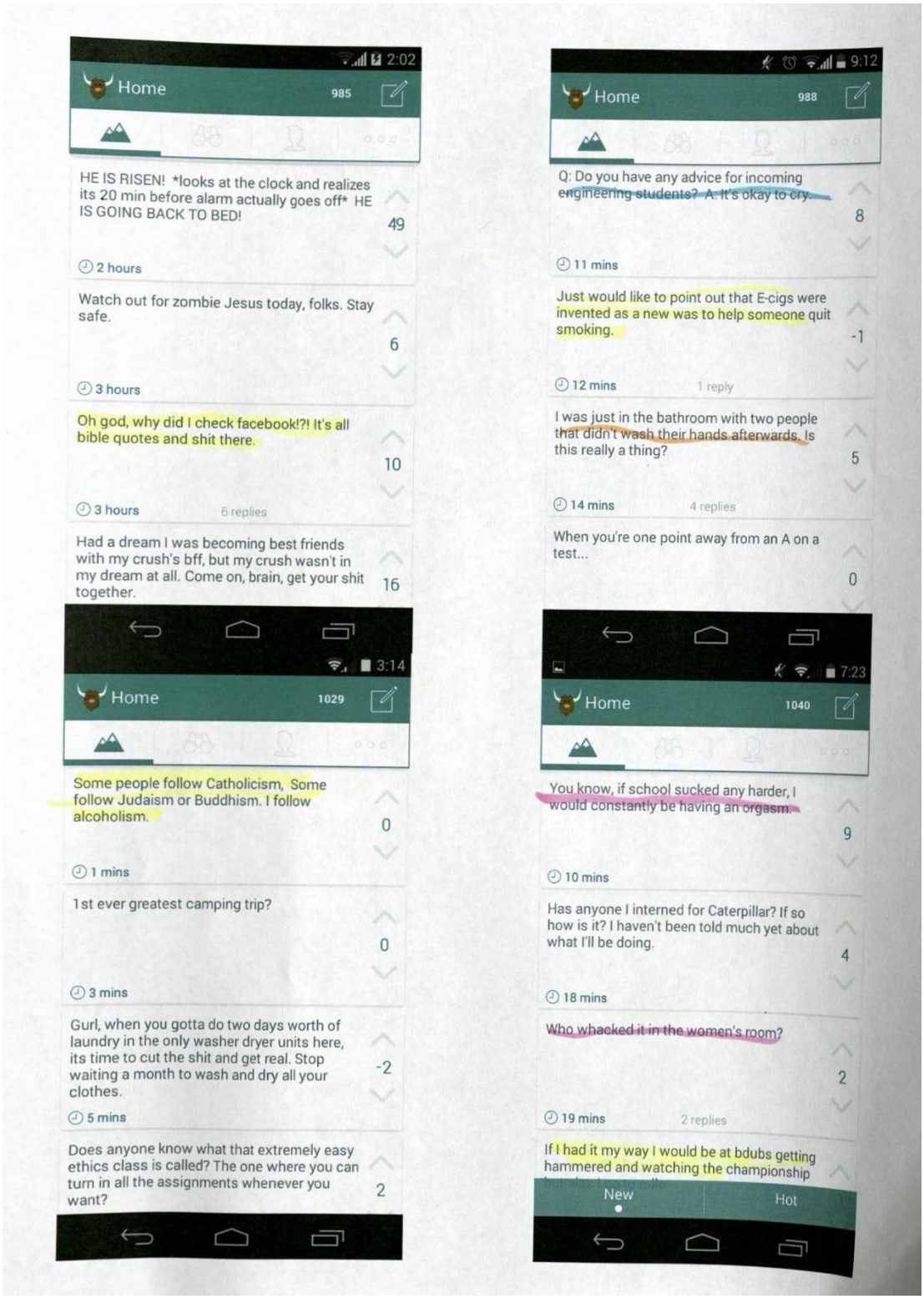
**APPENDIX C**

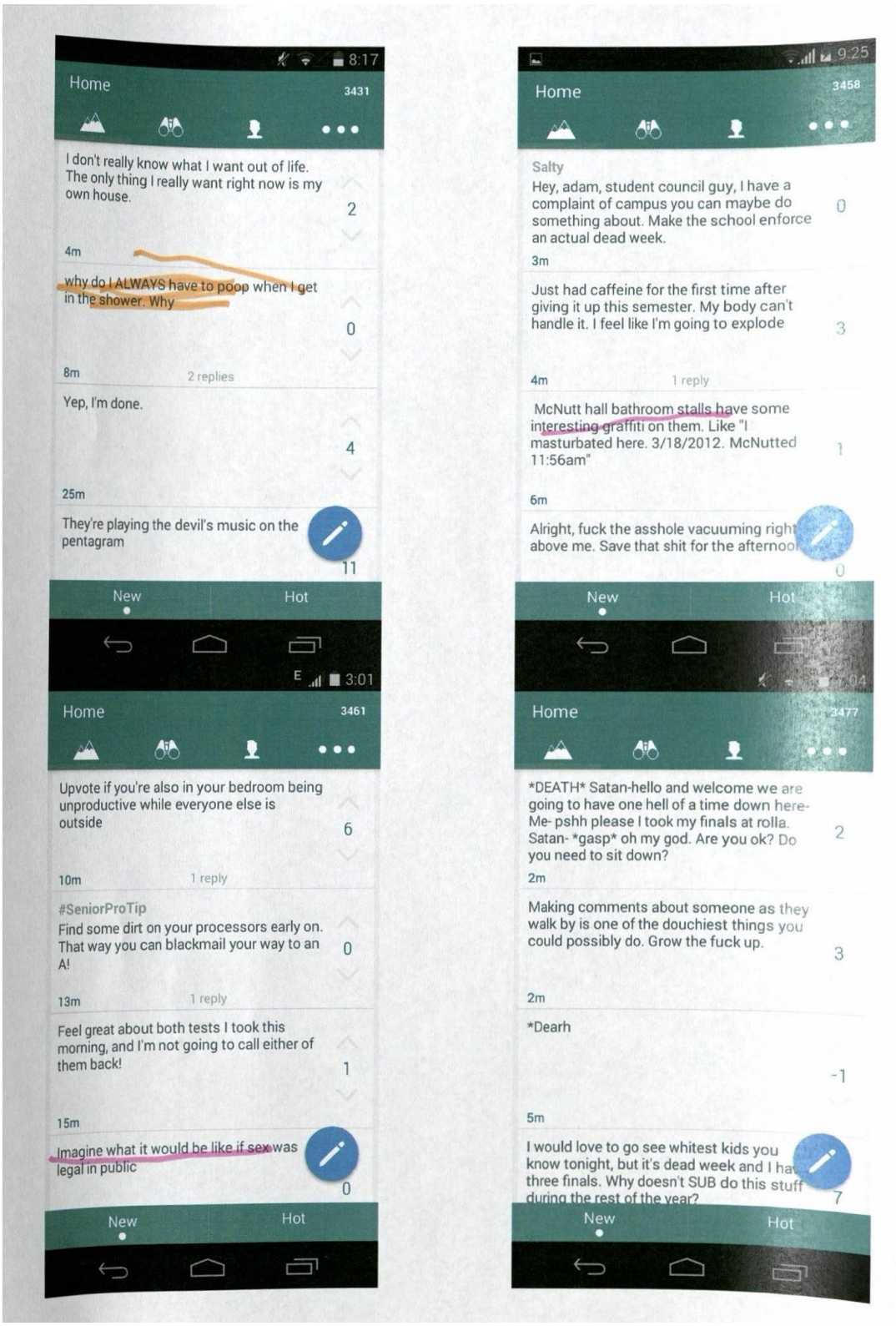
**LARGE STUDY RESULTS**

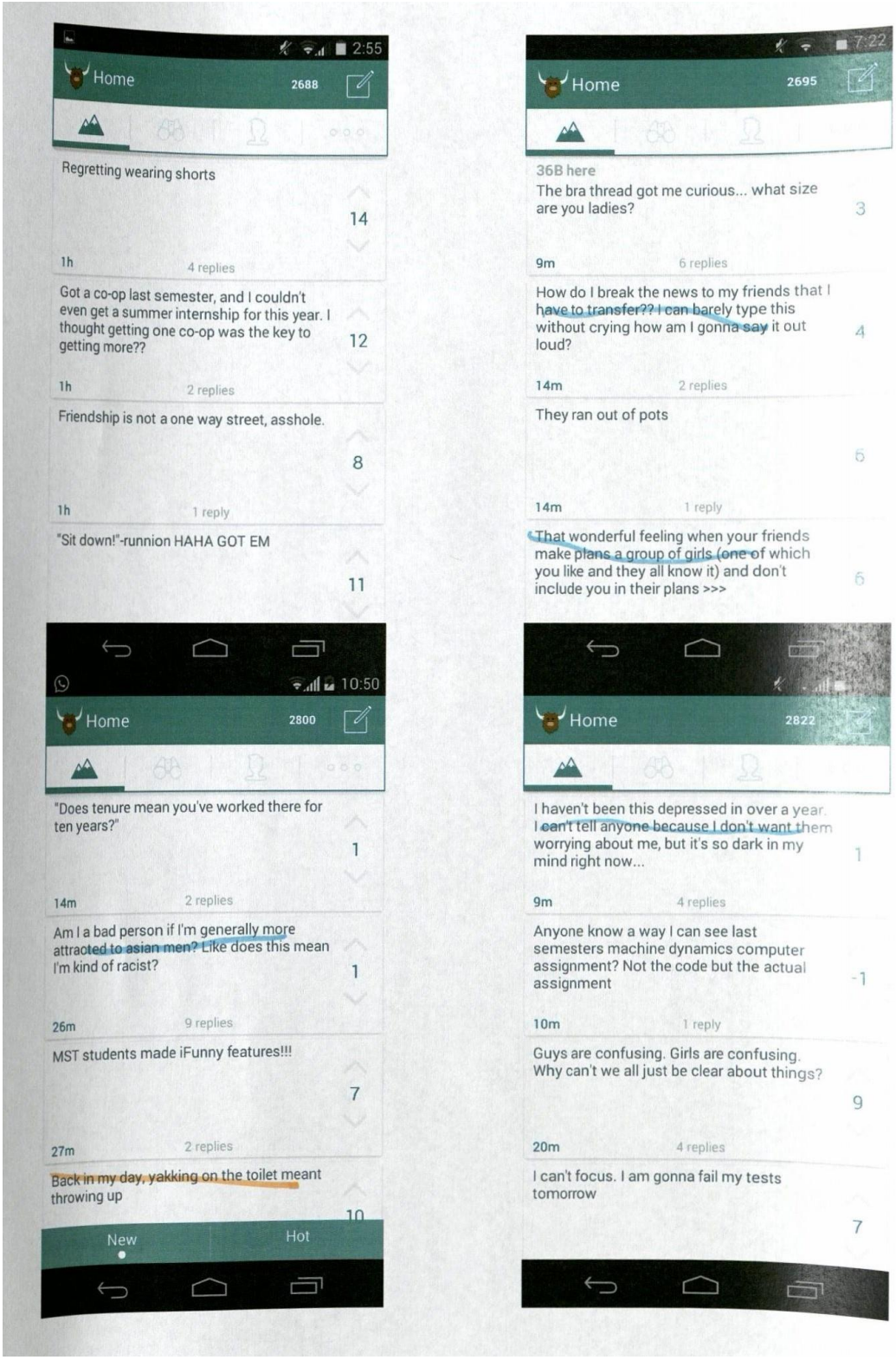
A – CODER 1

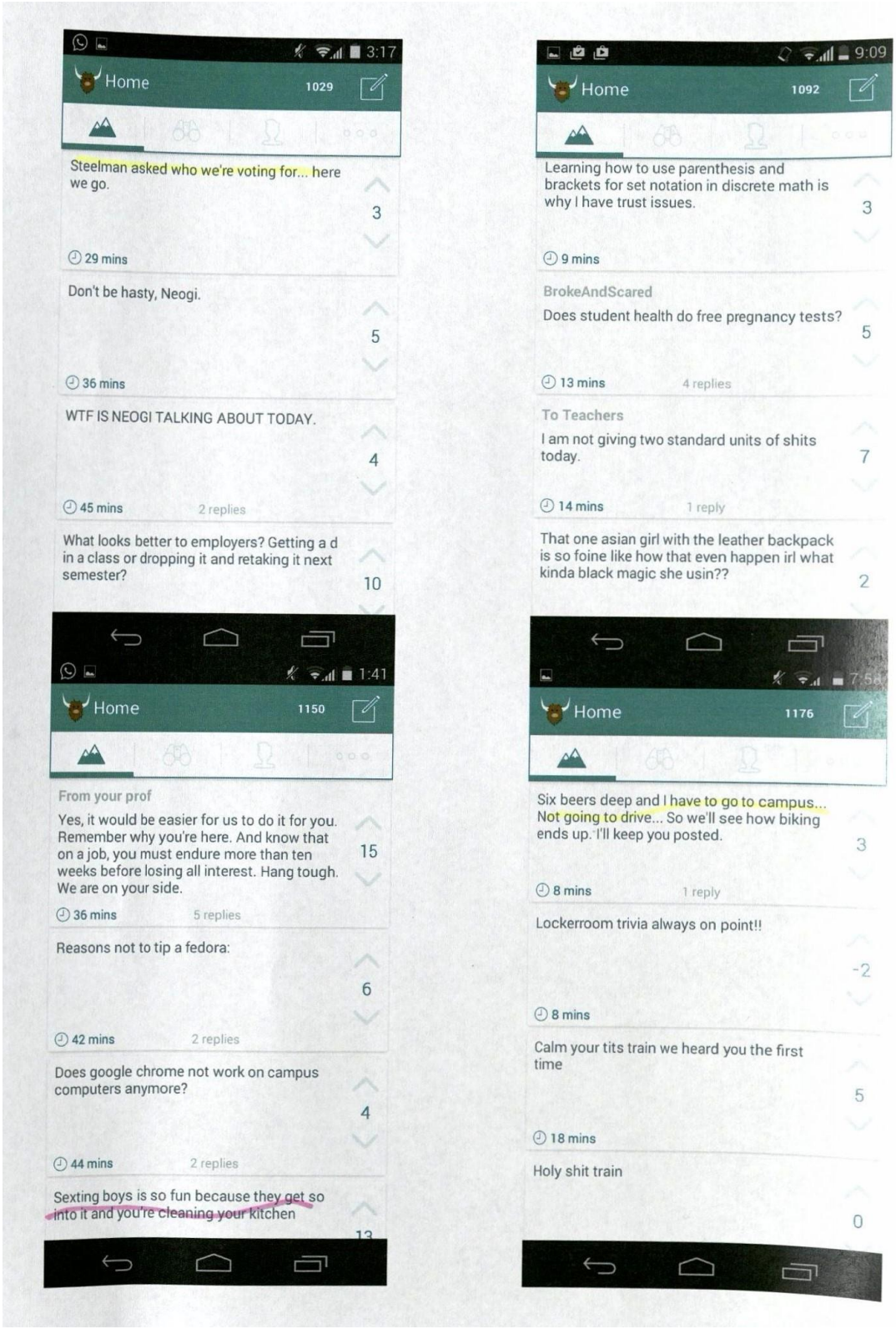


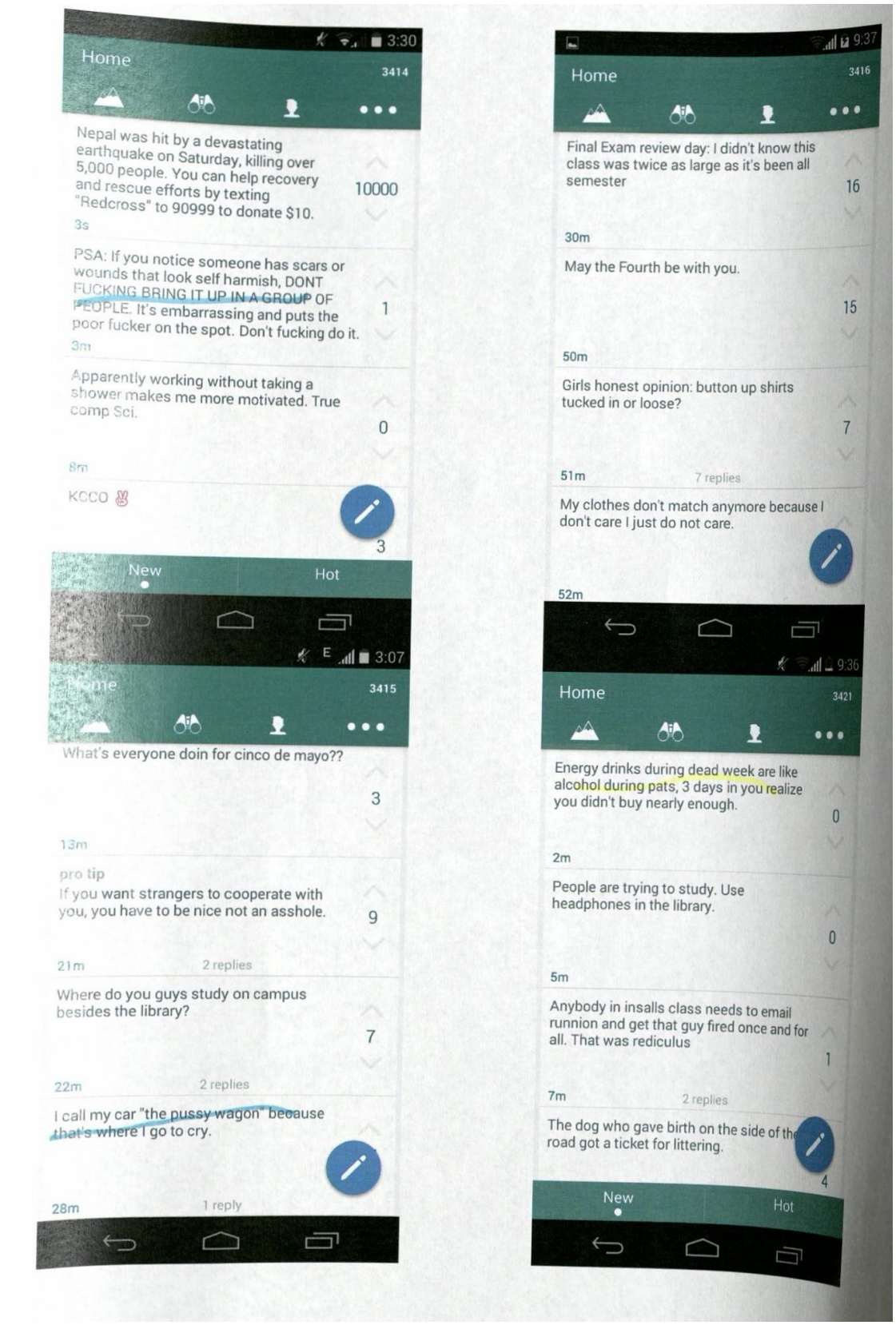


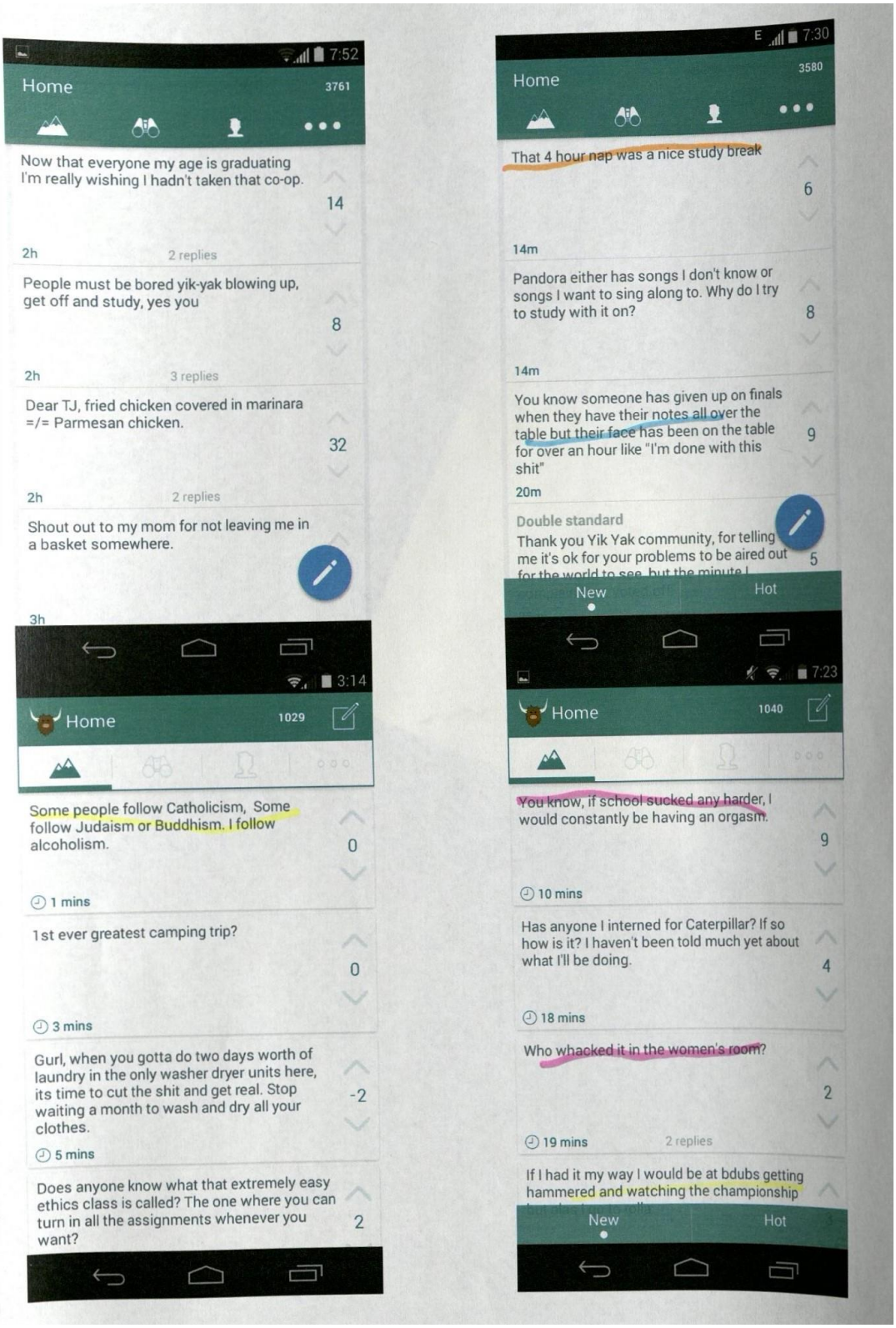


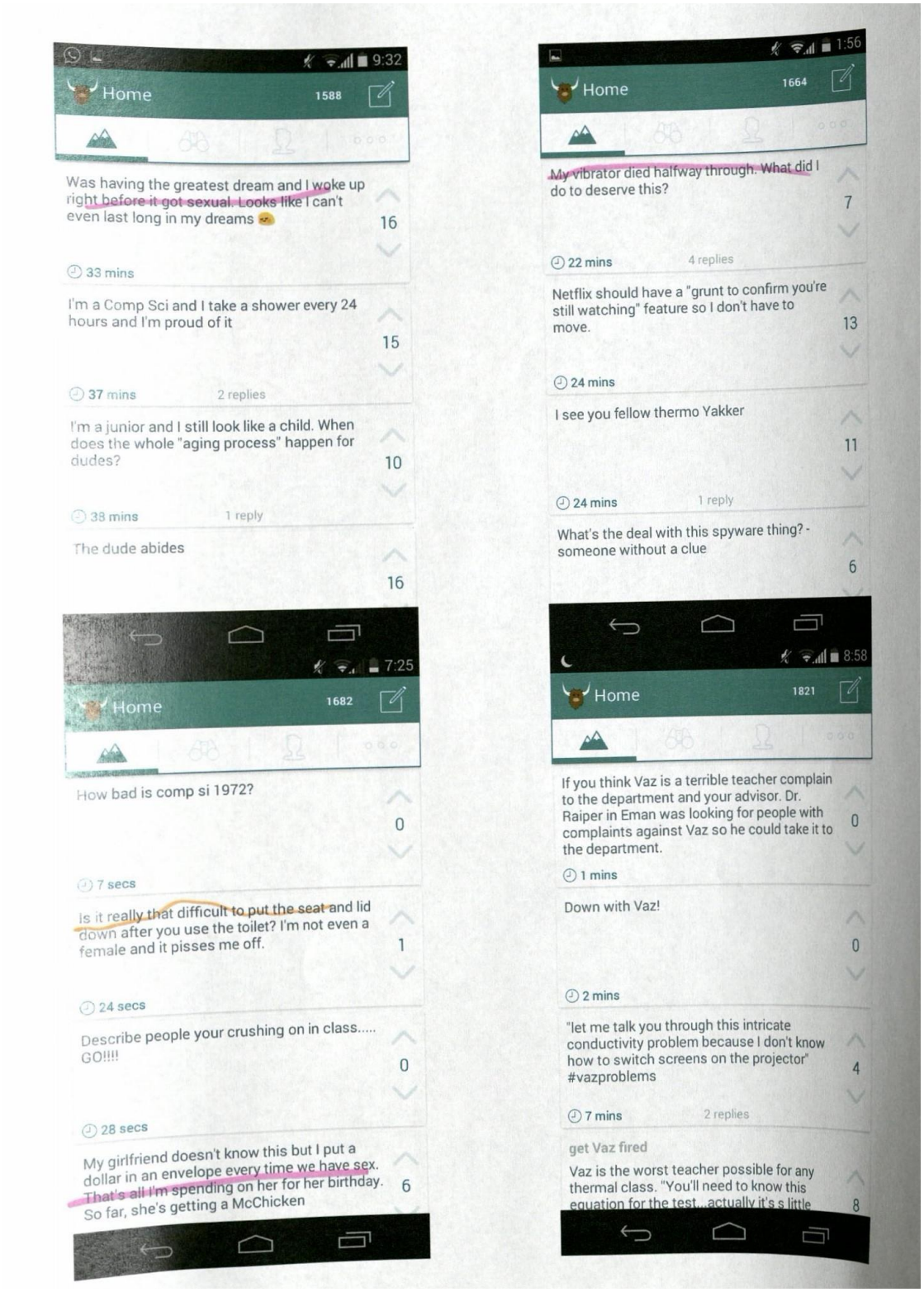


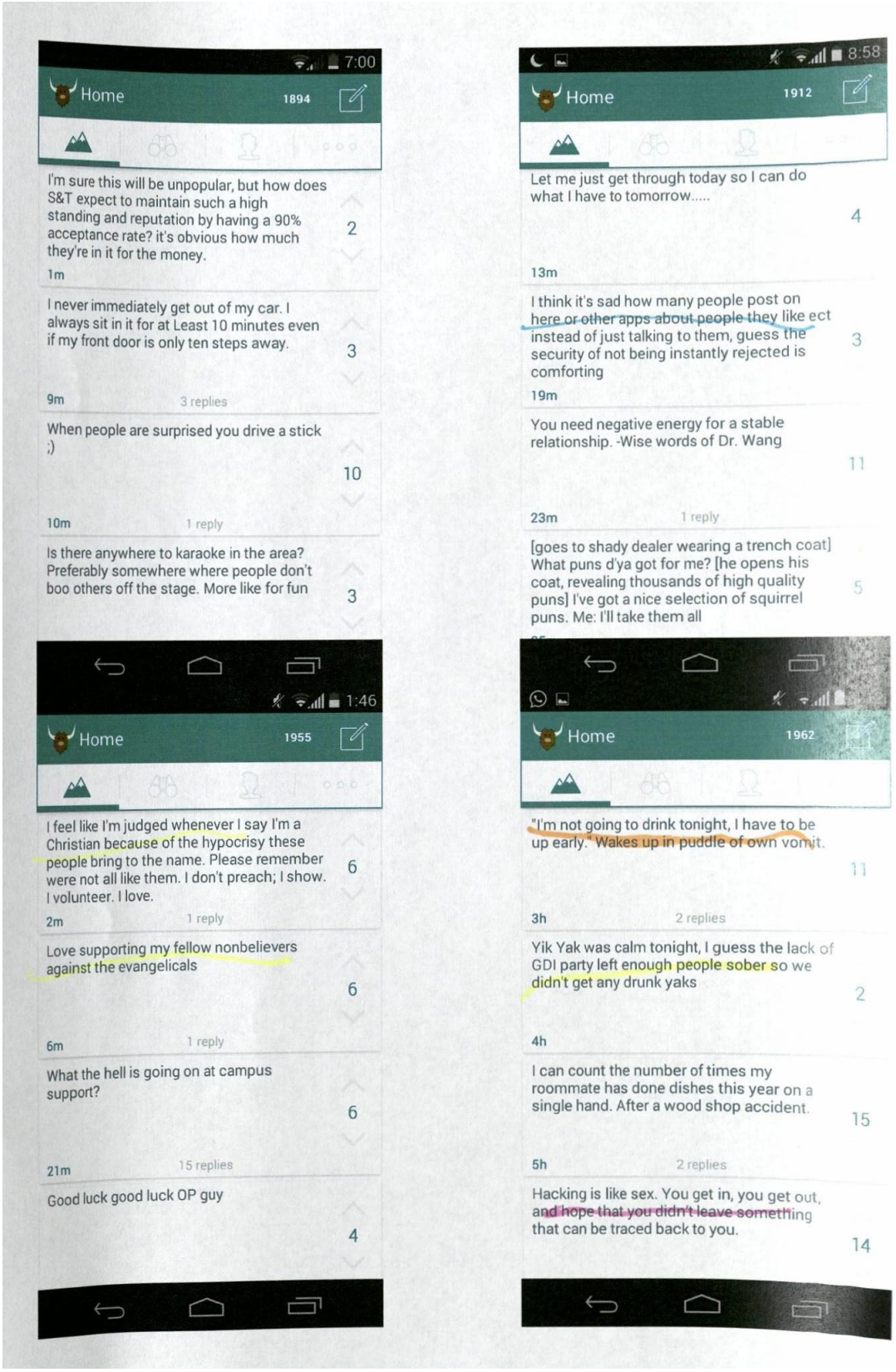


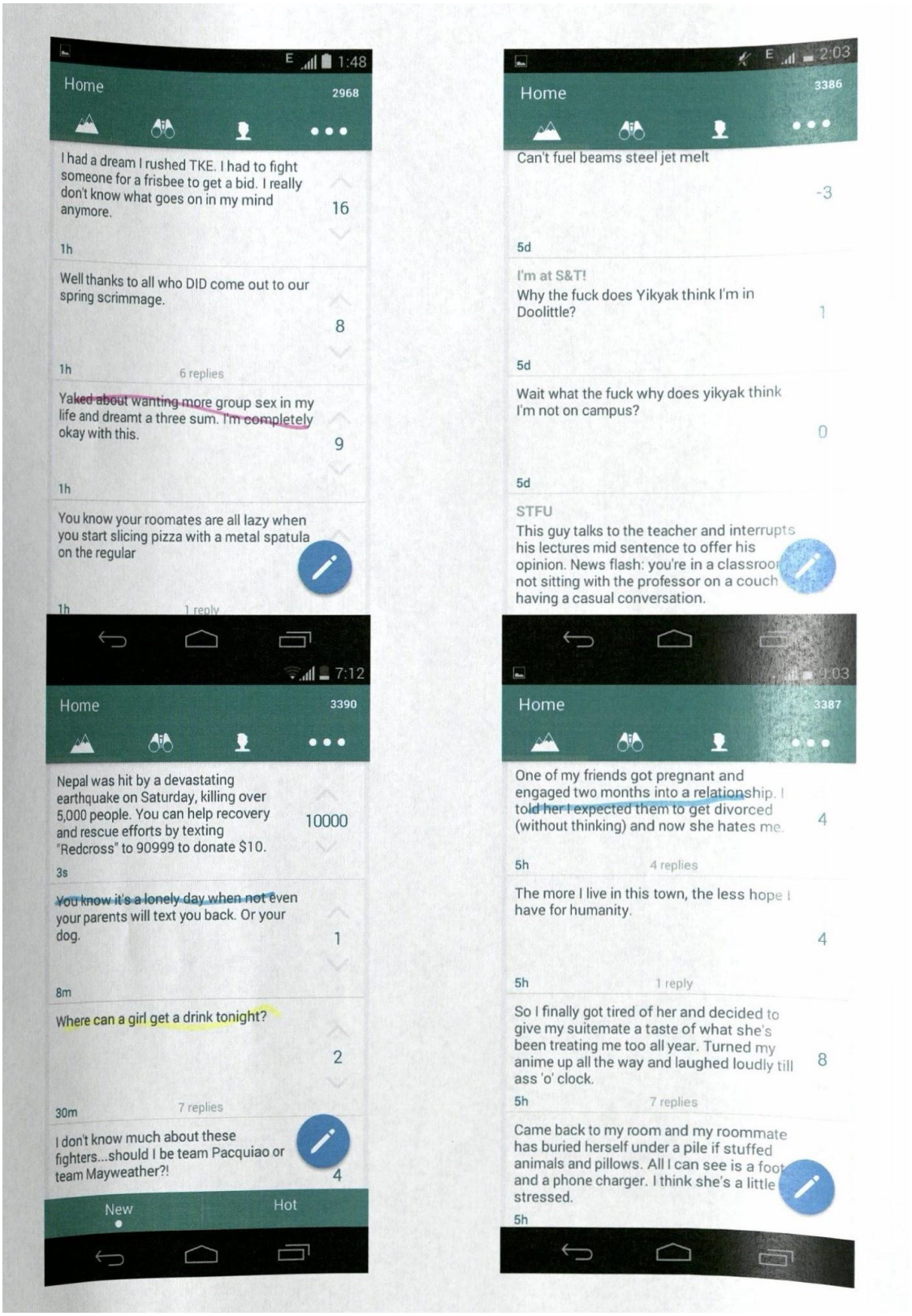


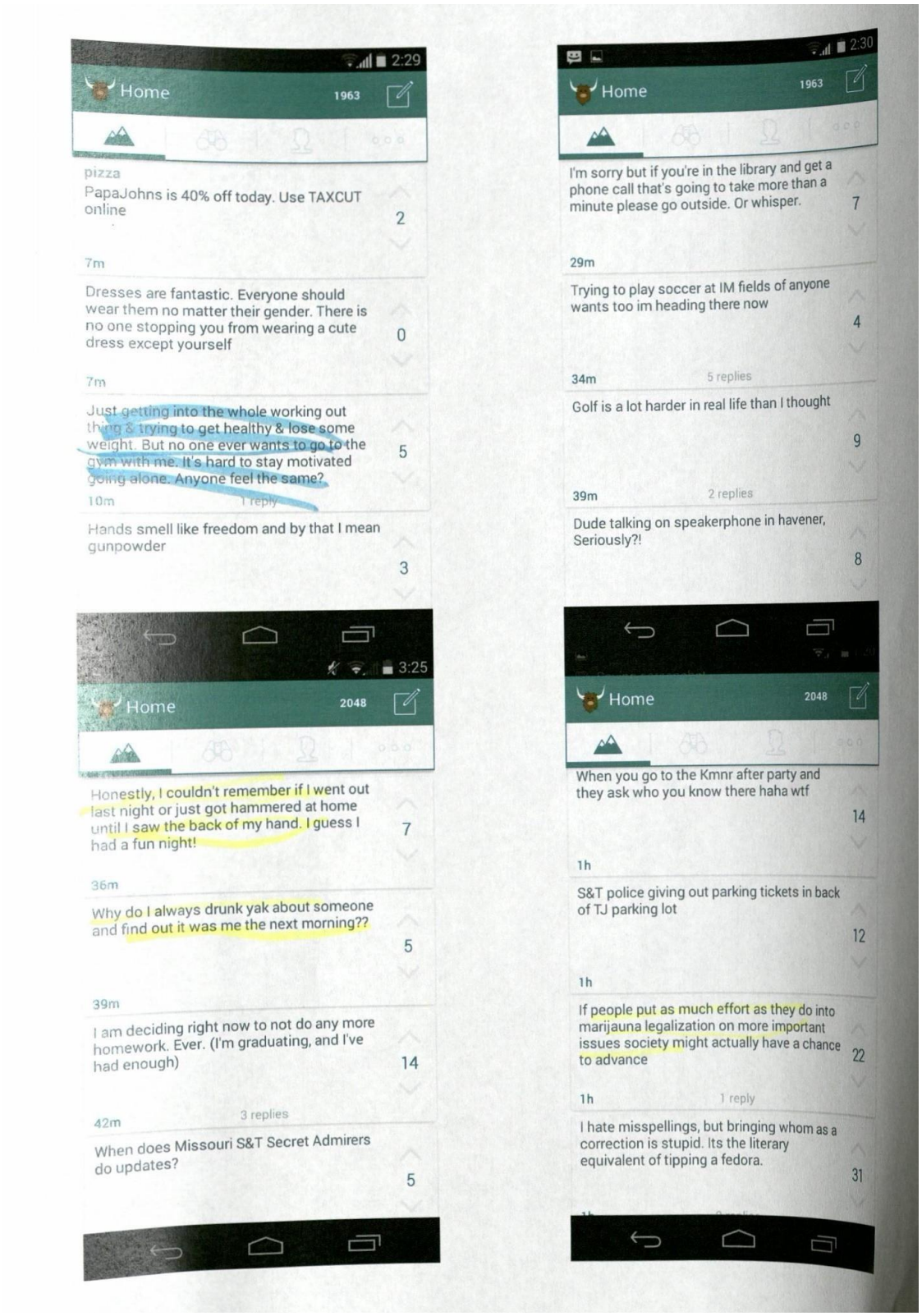


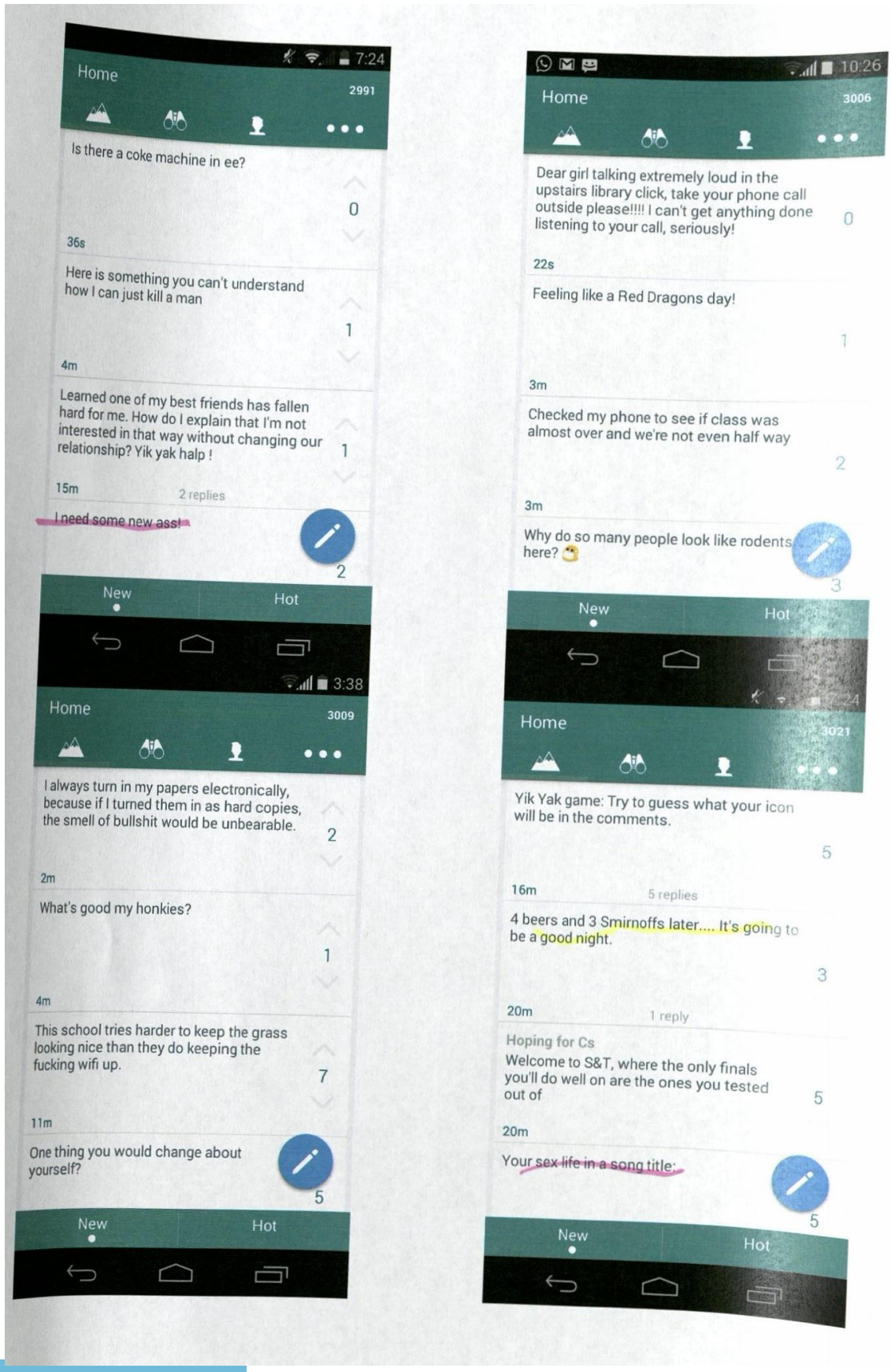


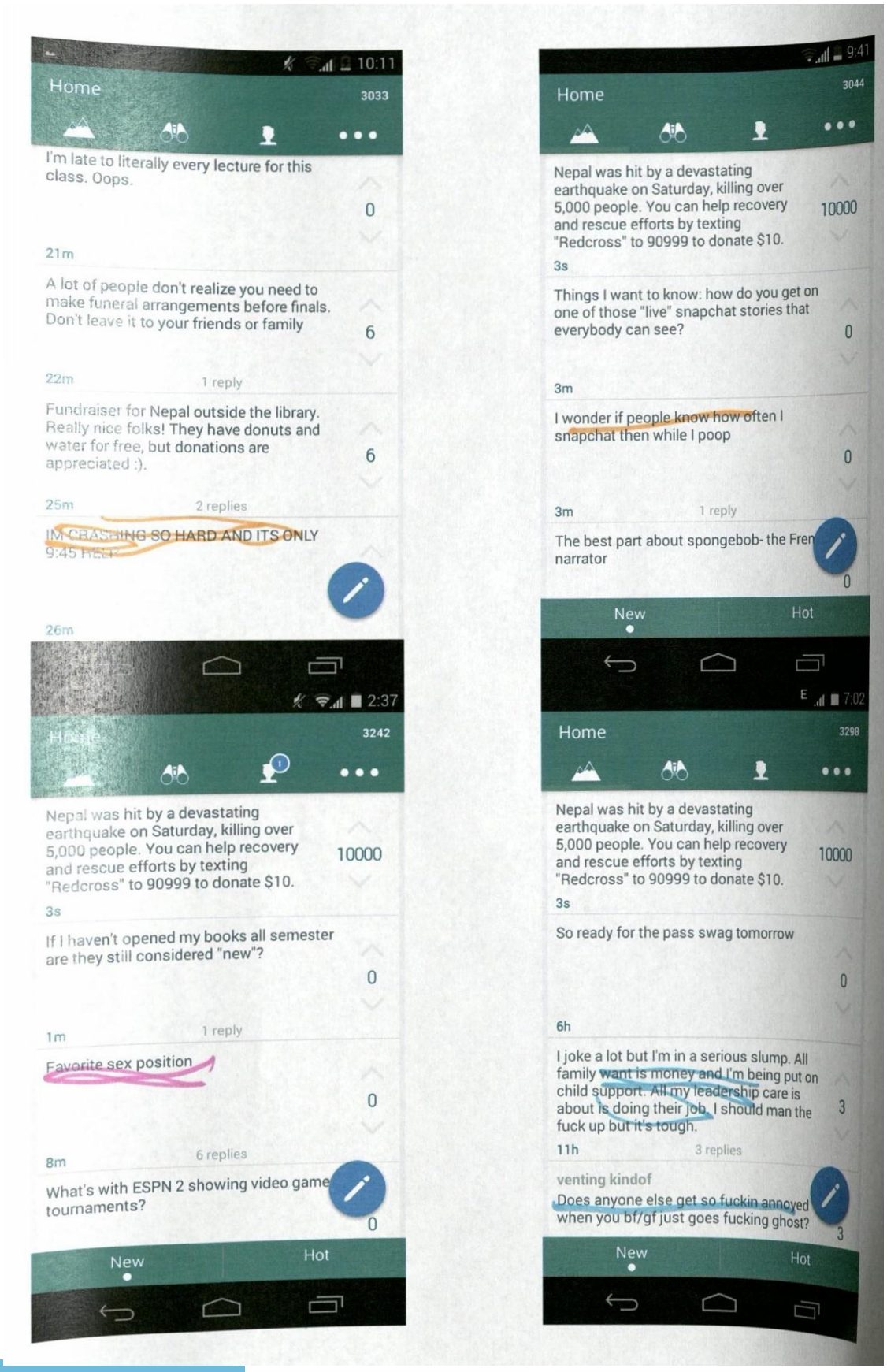


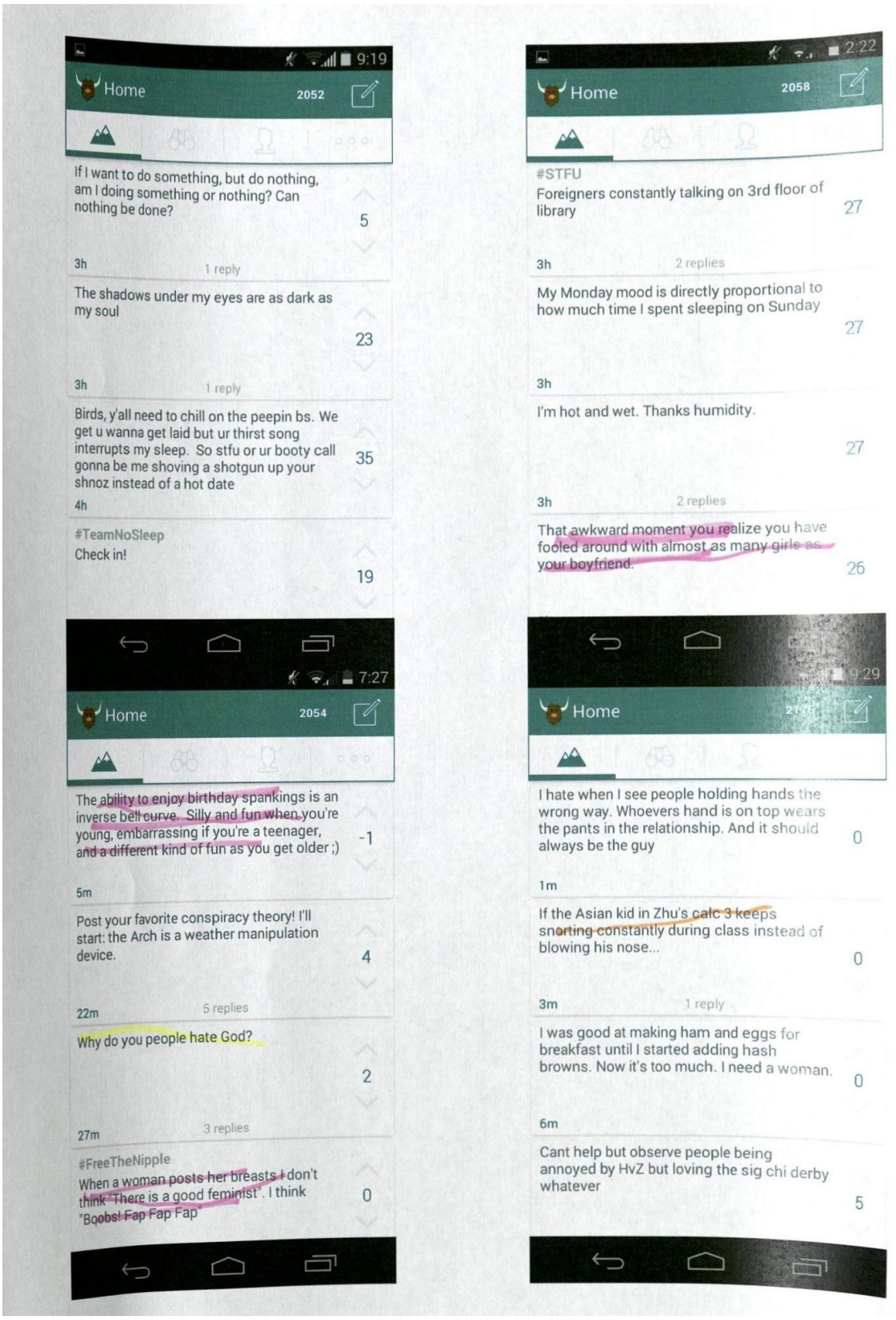


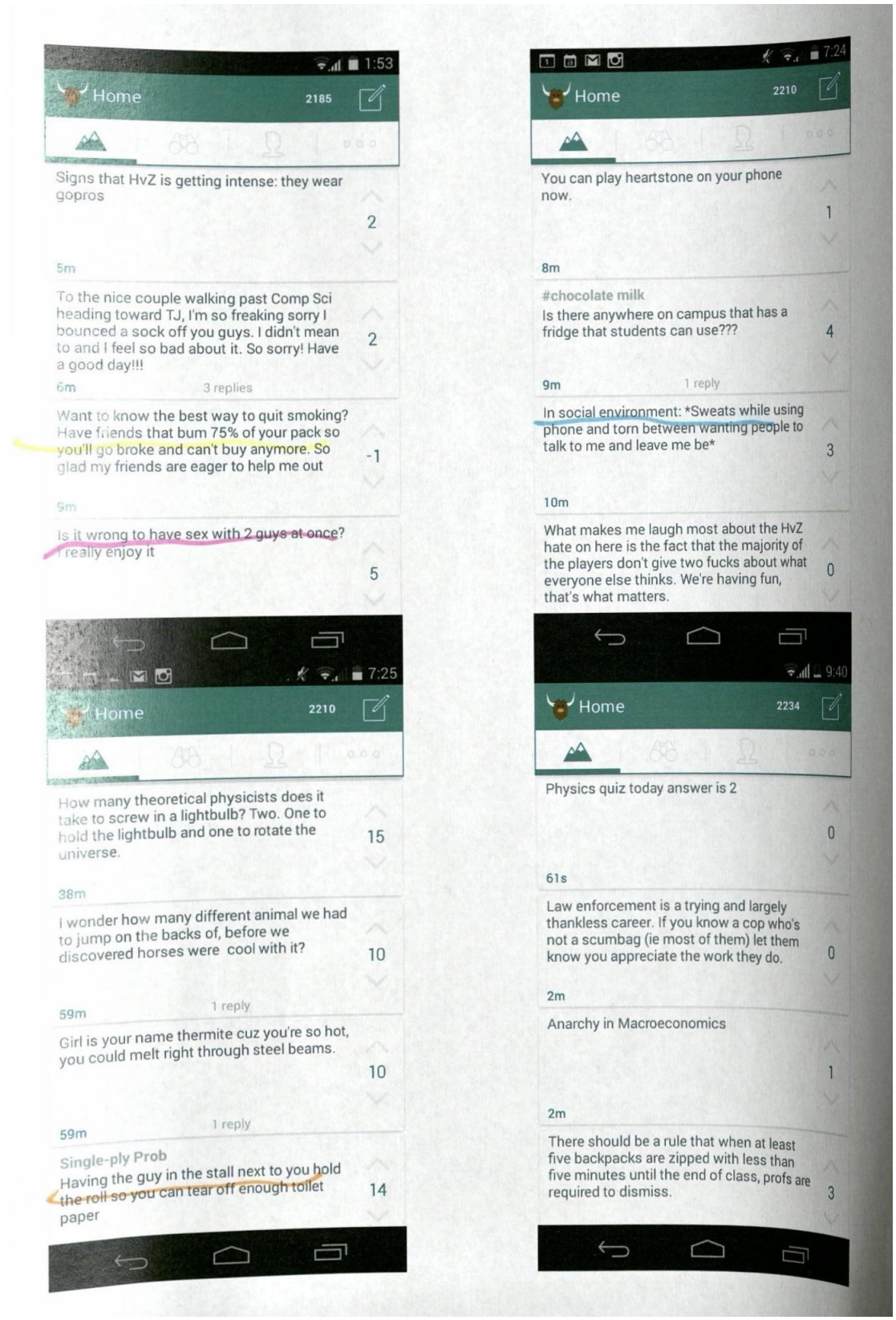


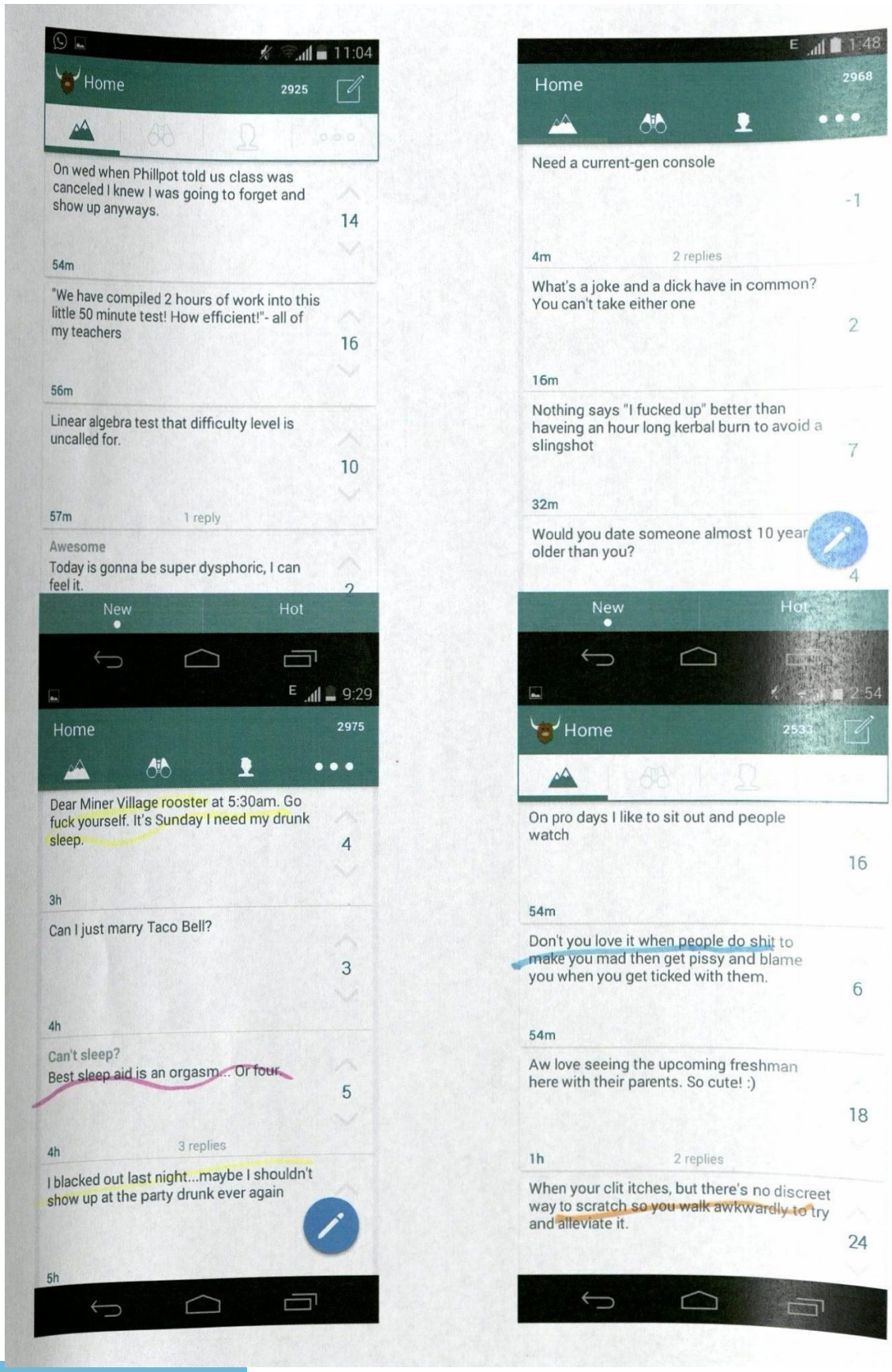


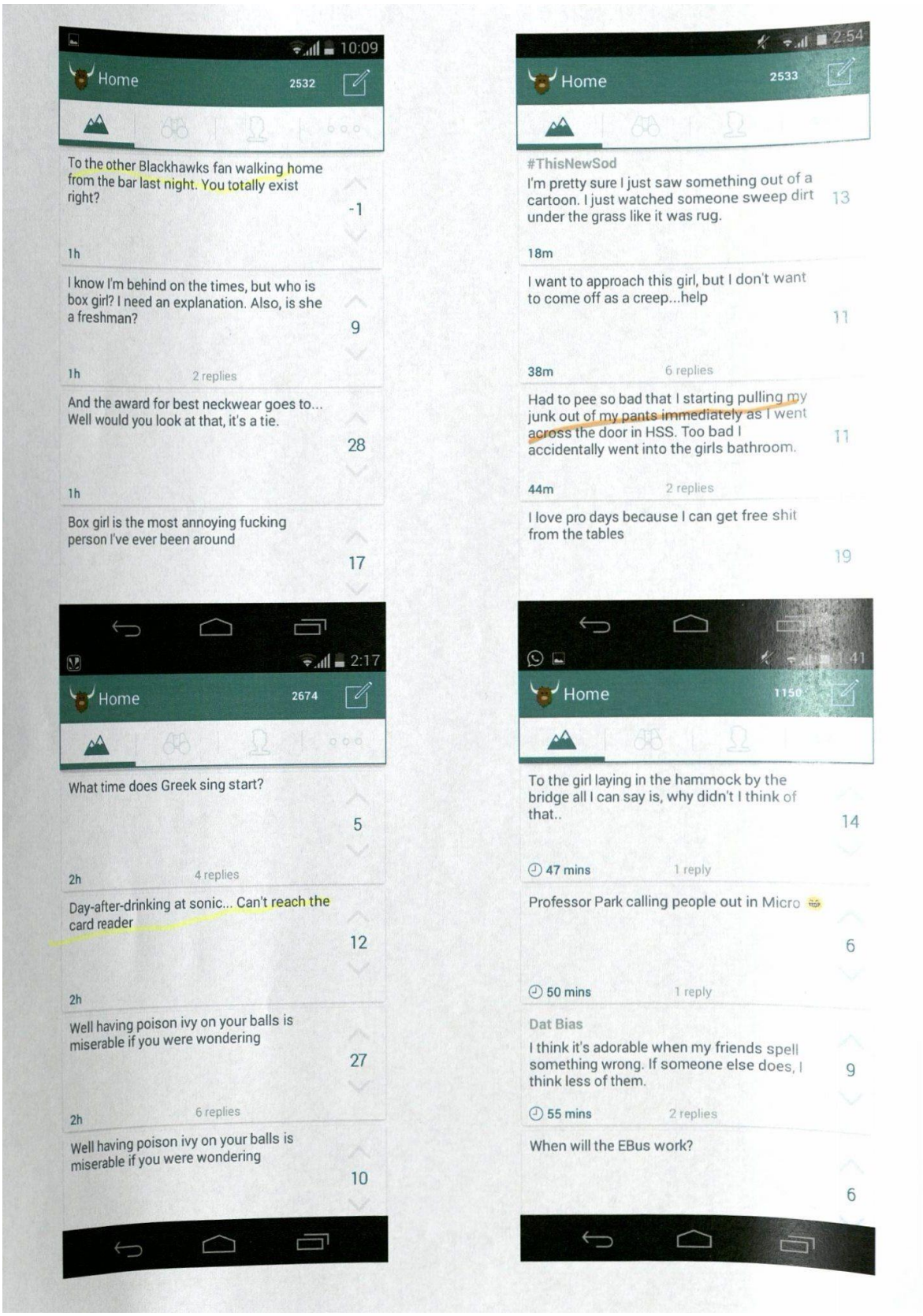


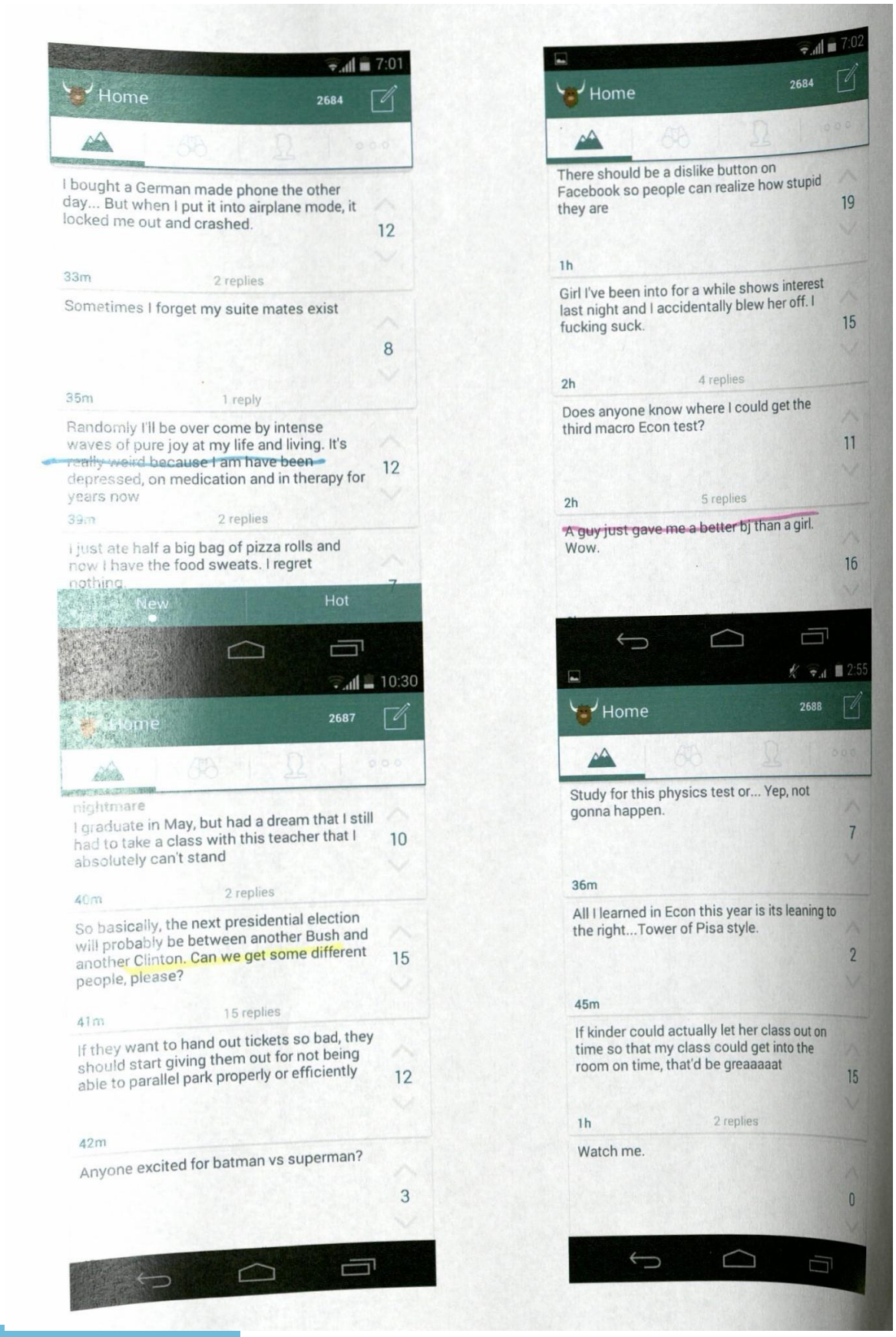


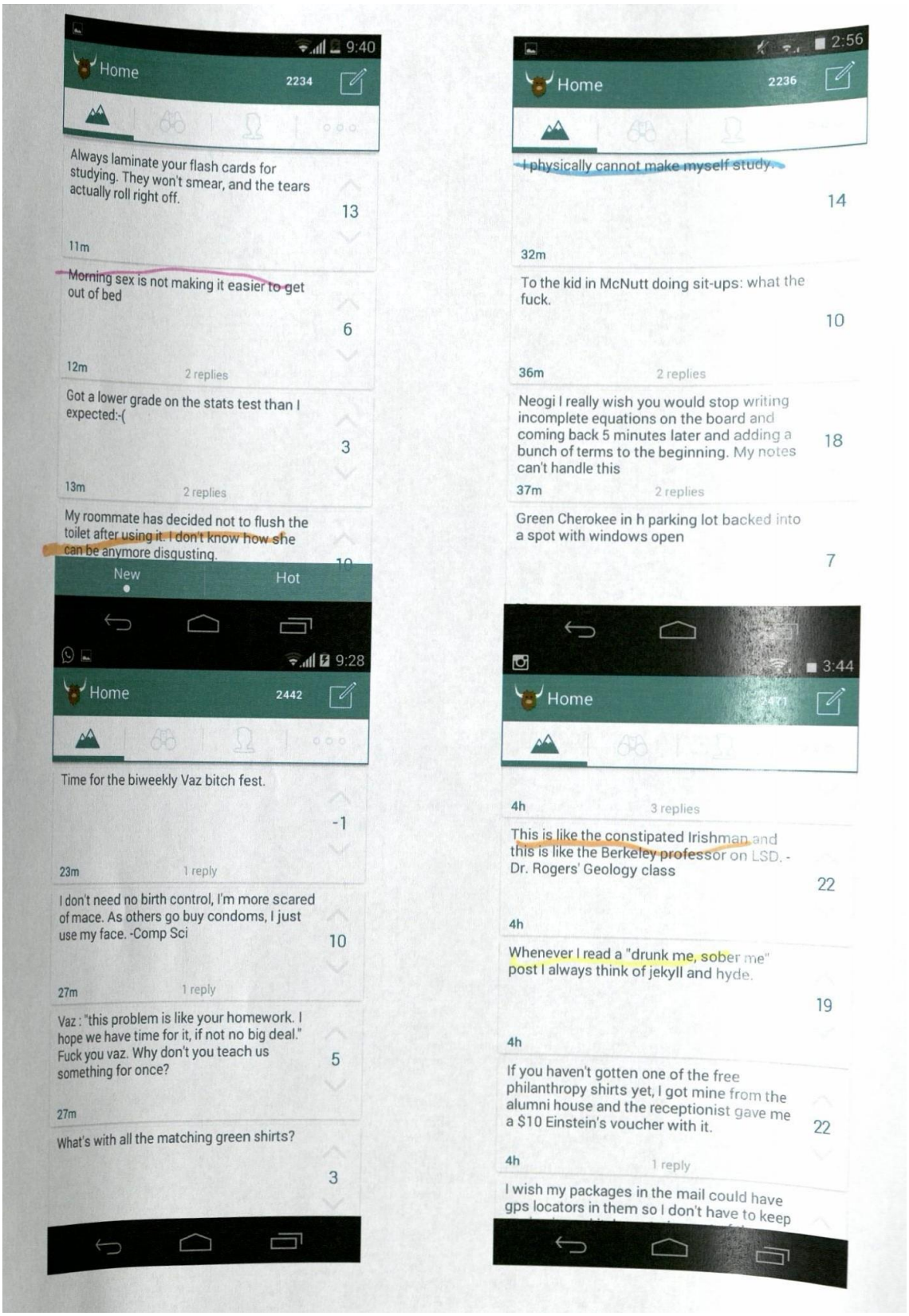


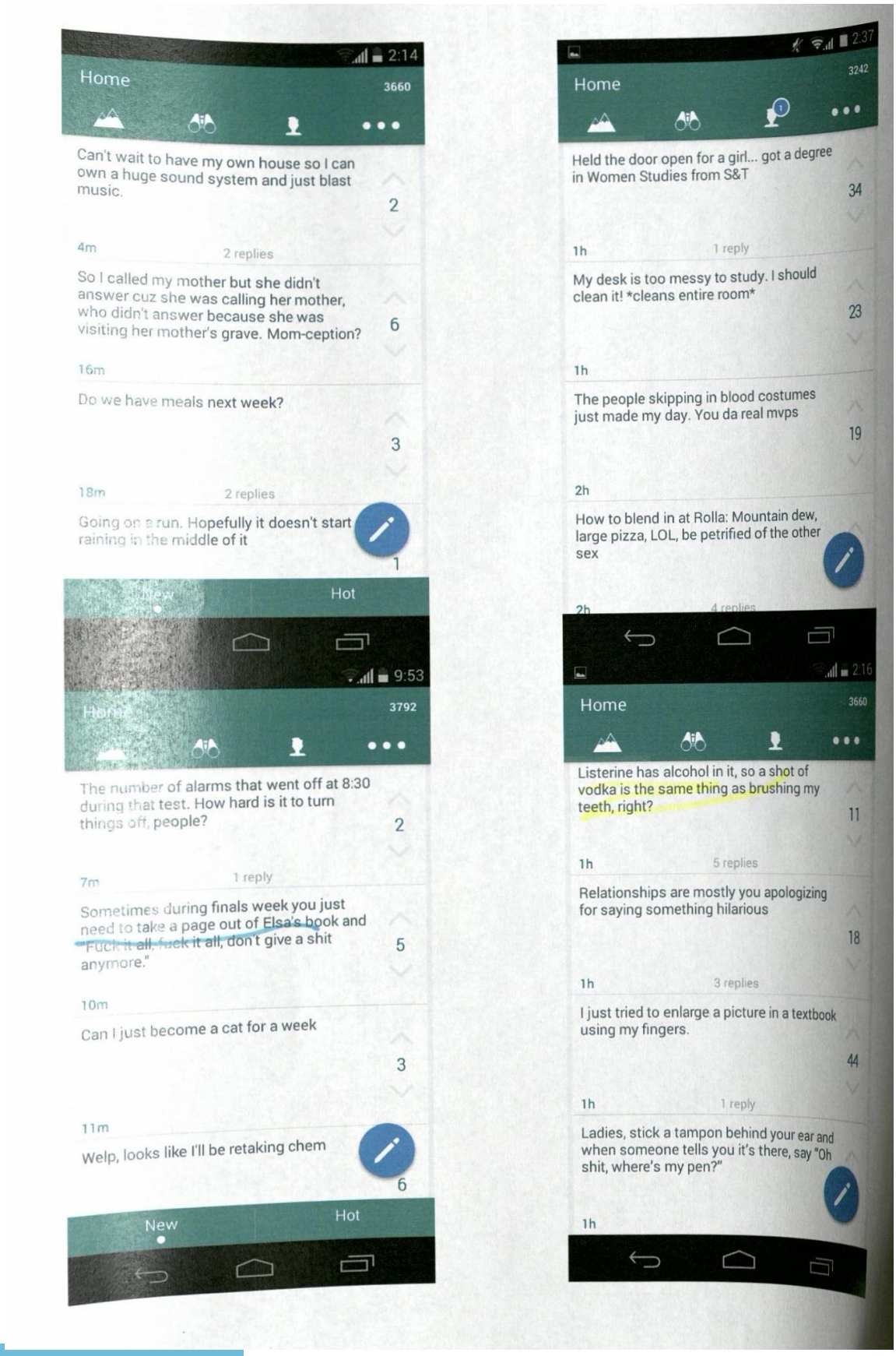


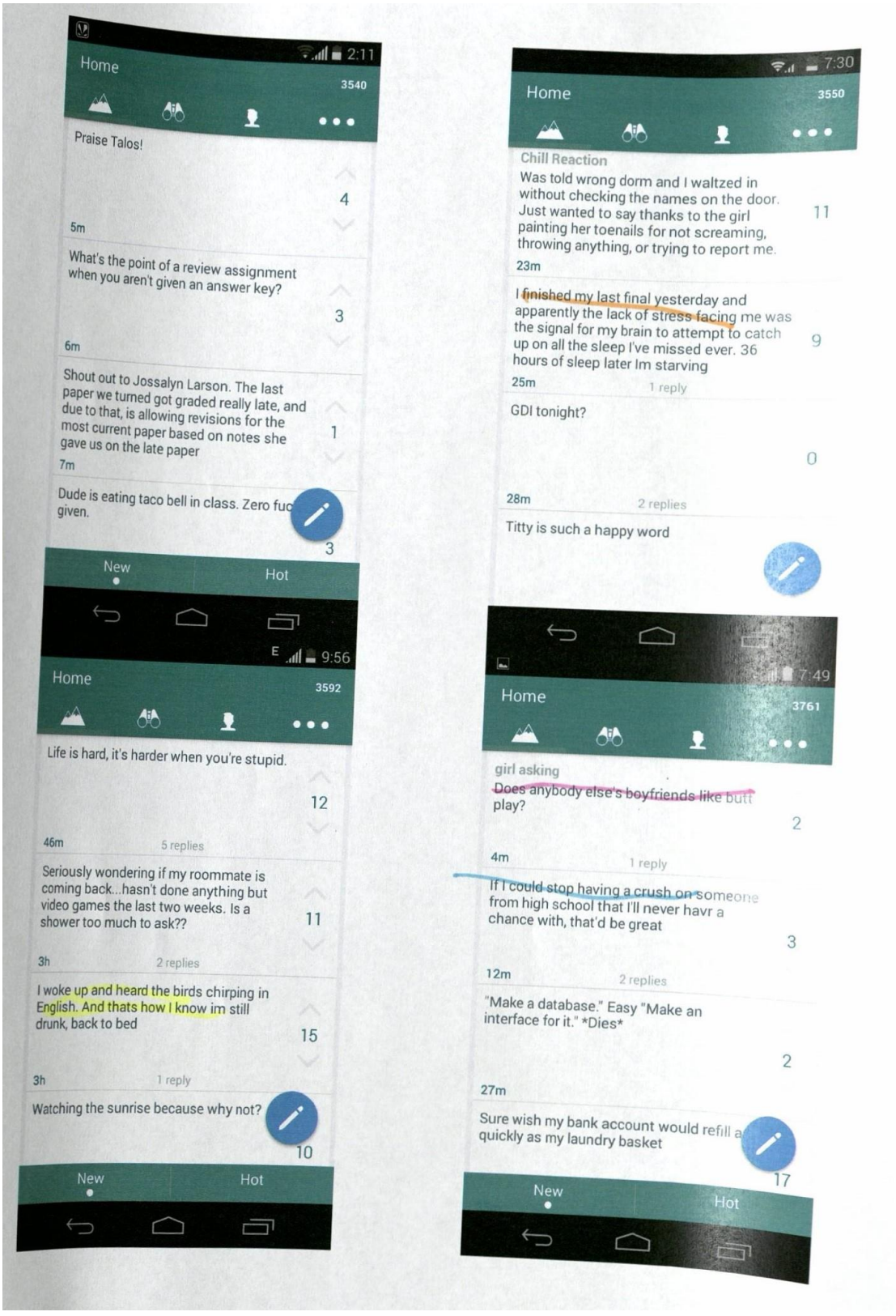












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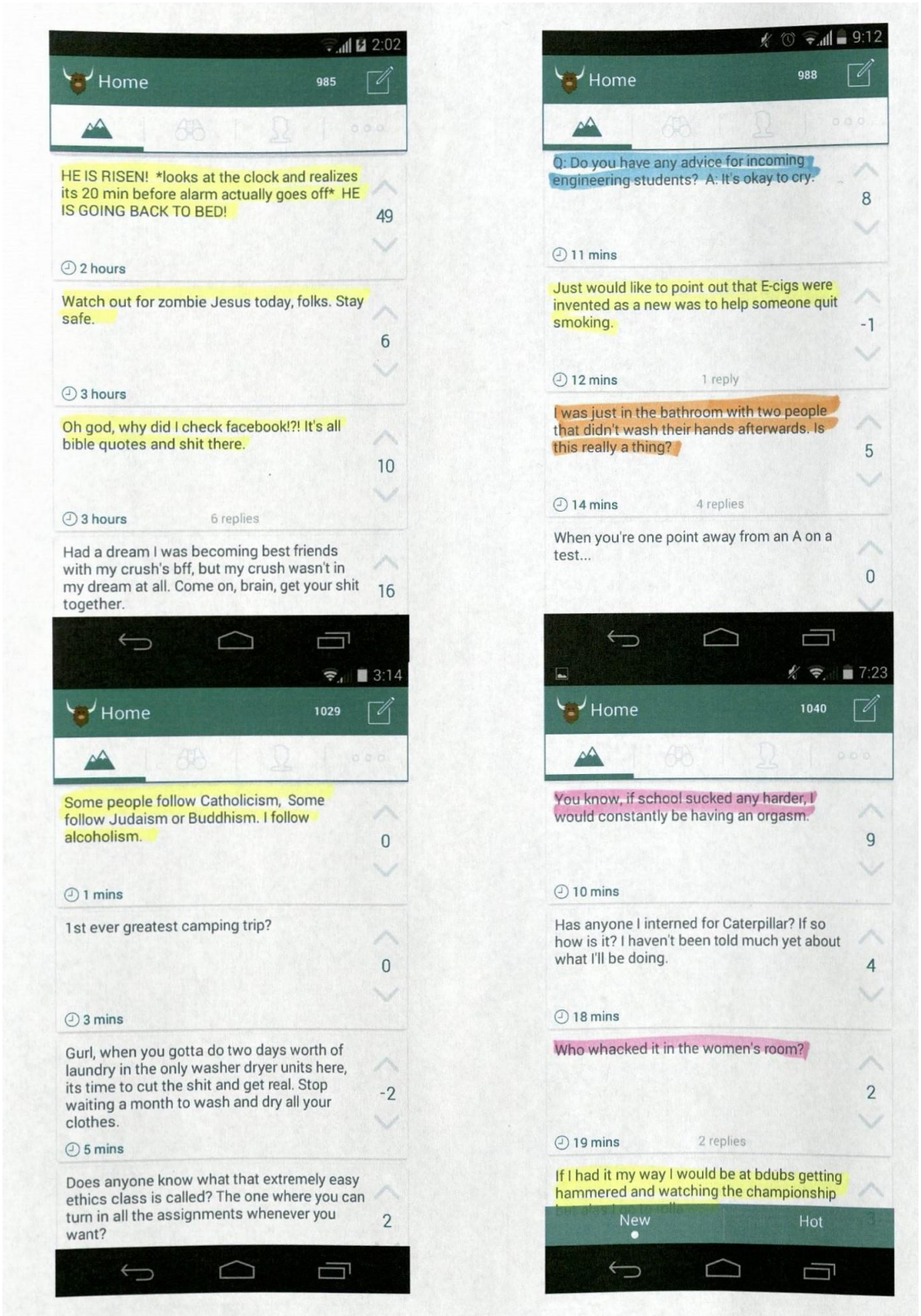

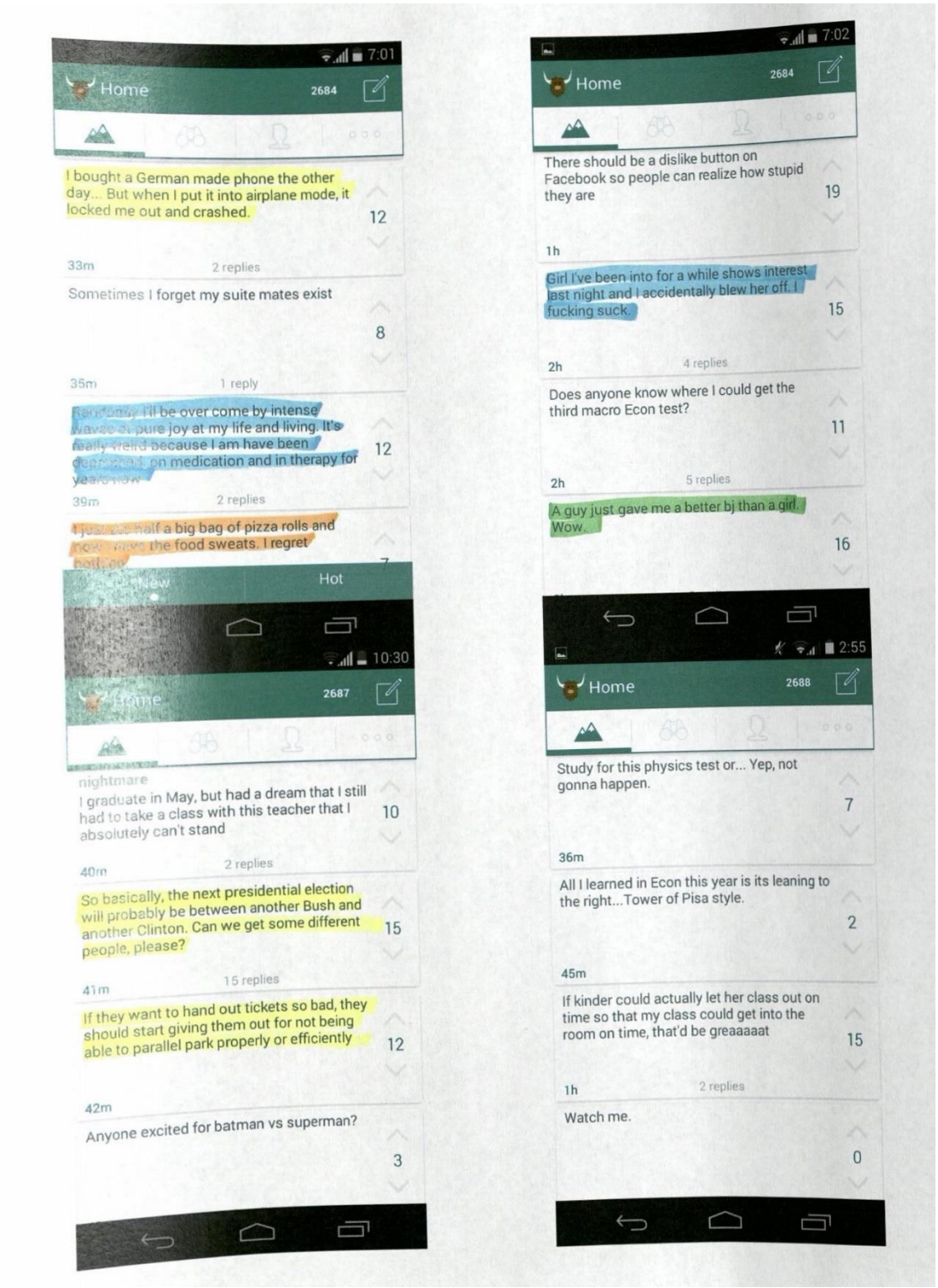

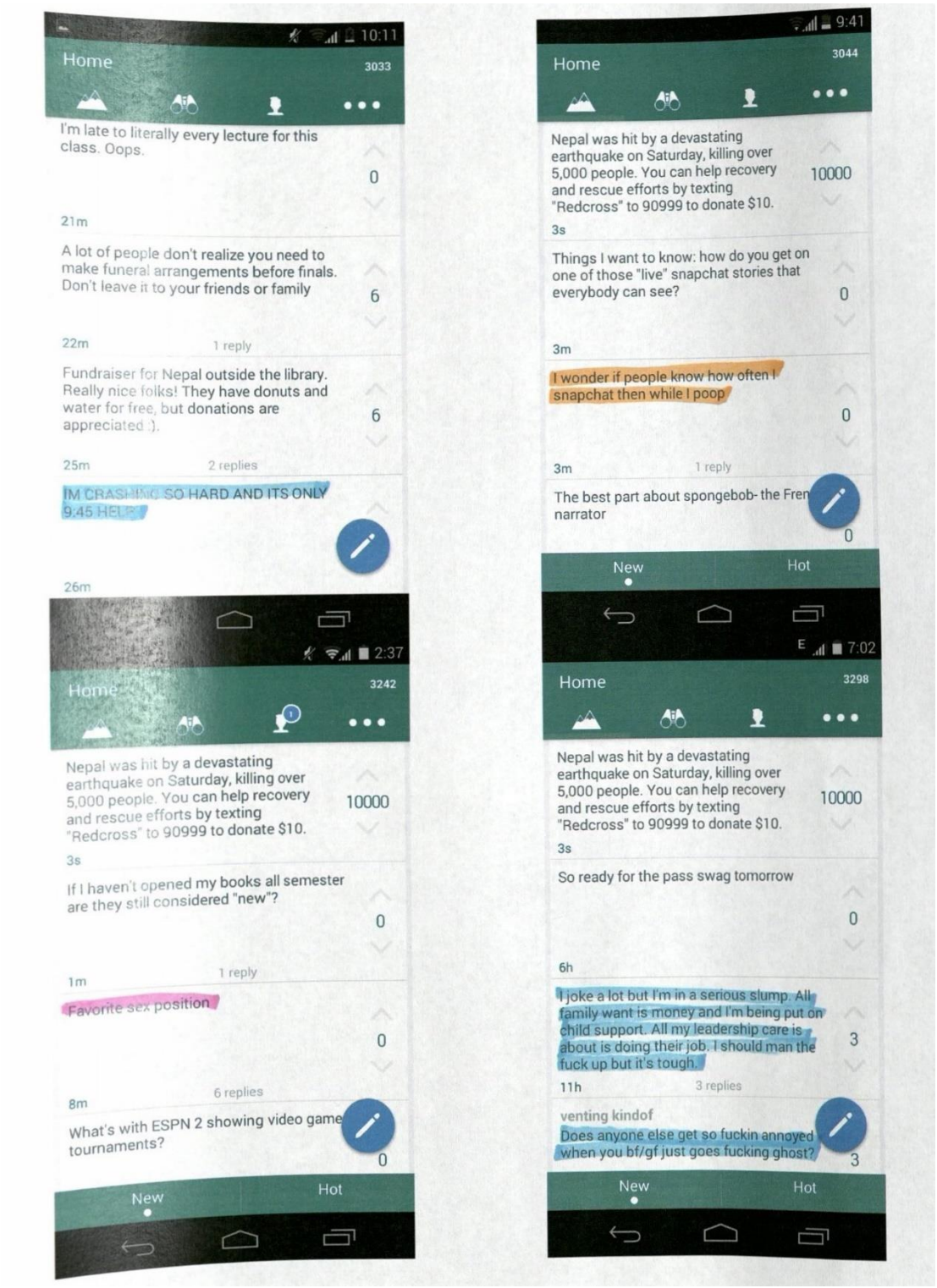

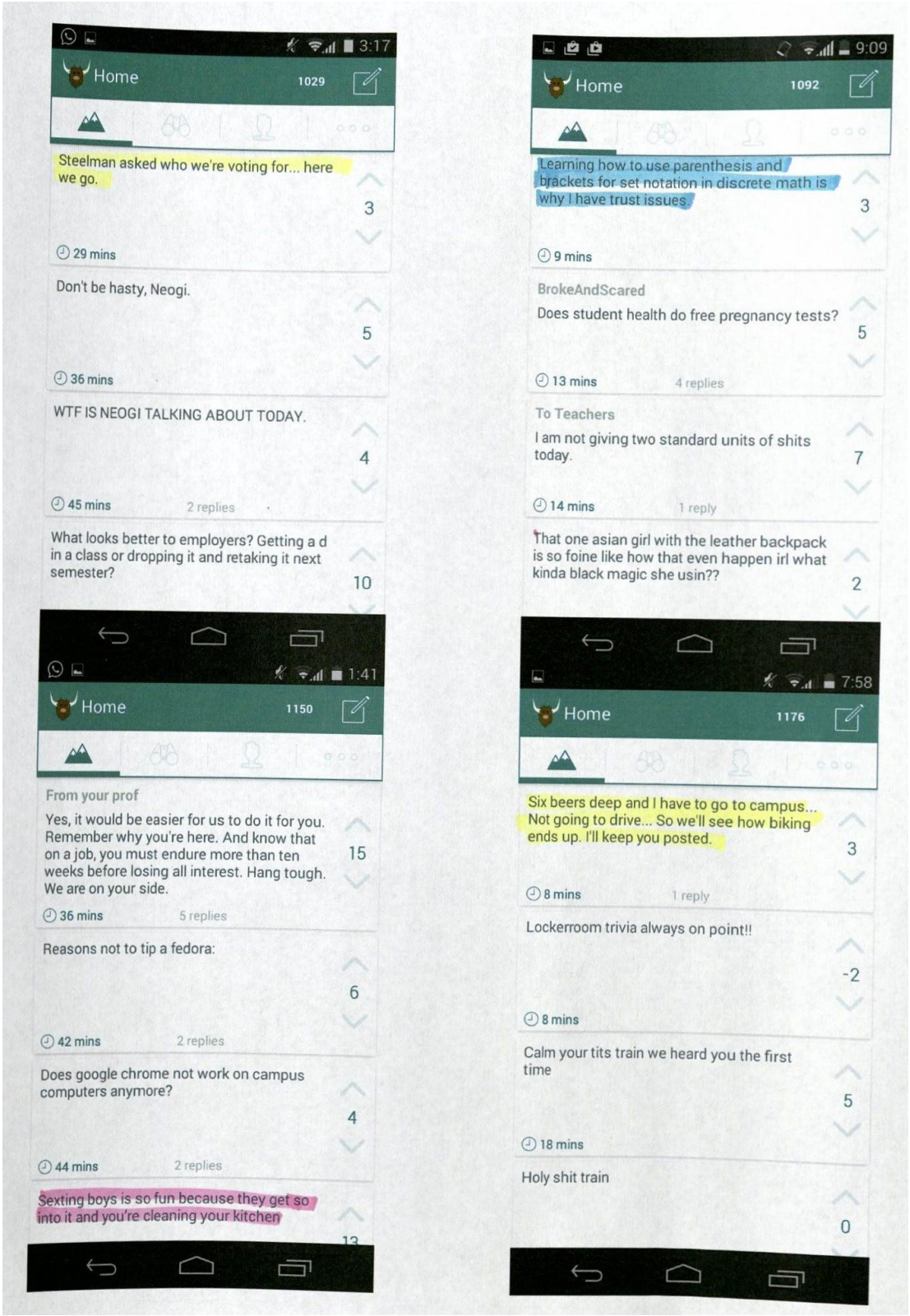

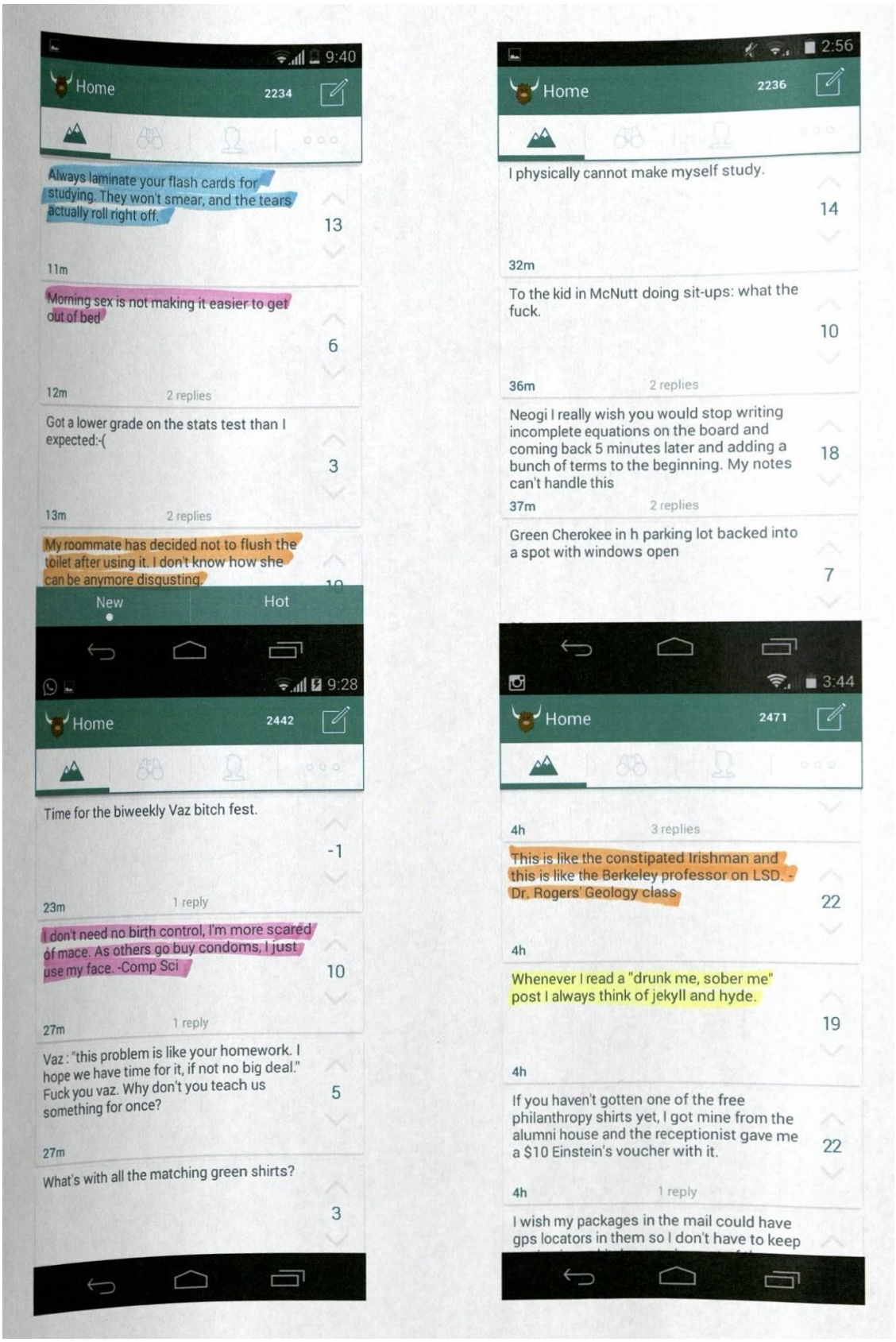

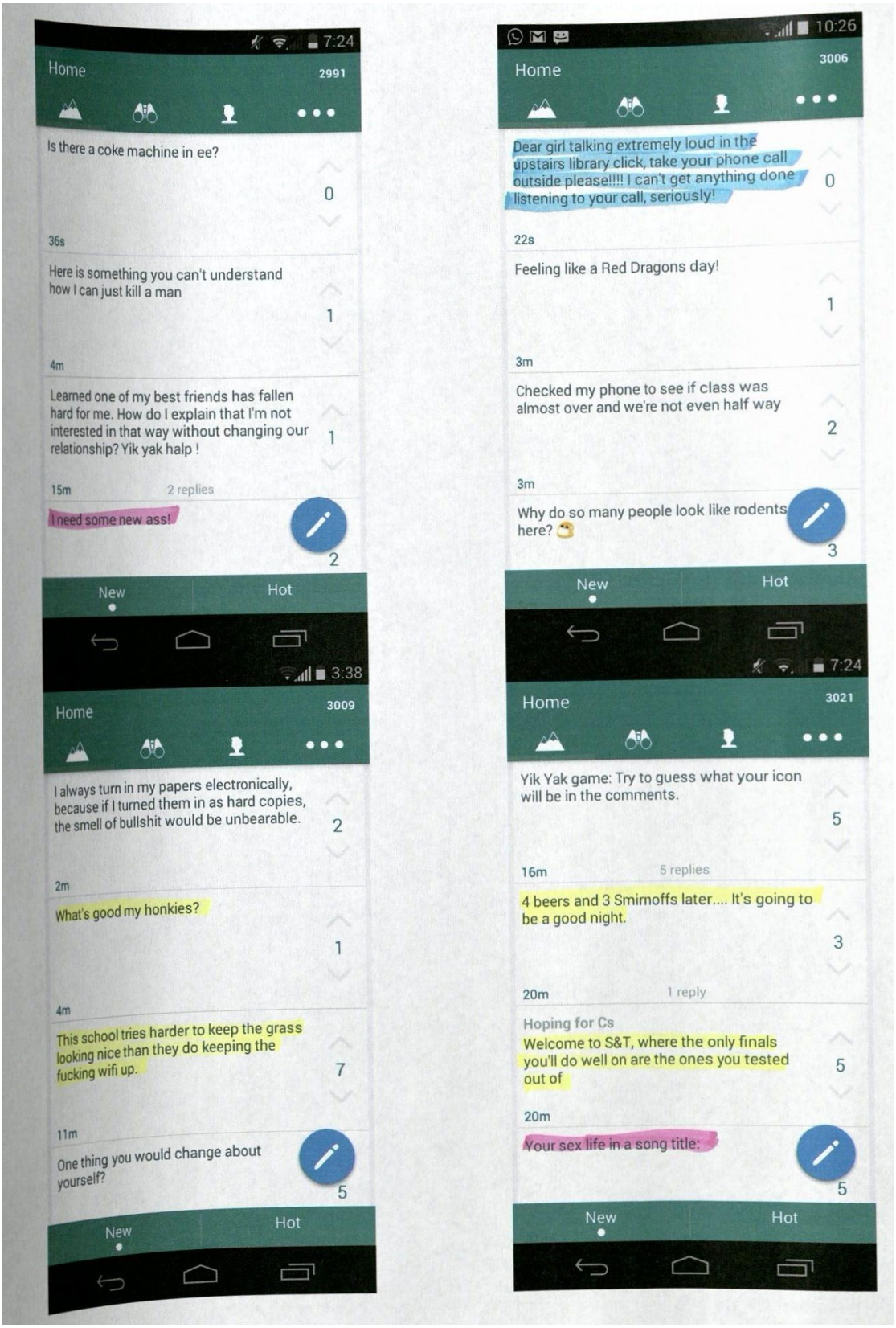

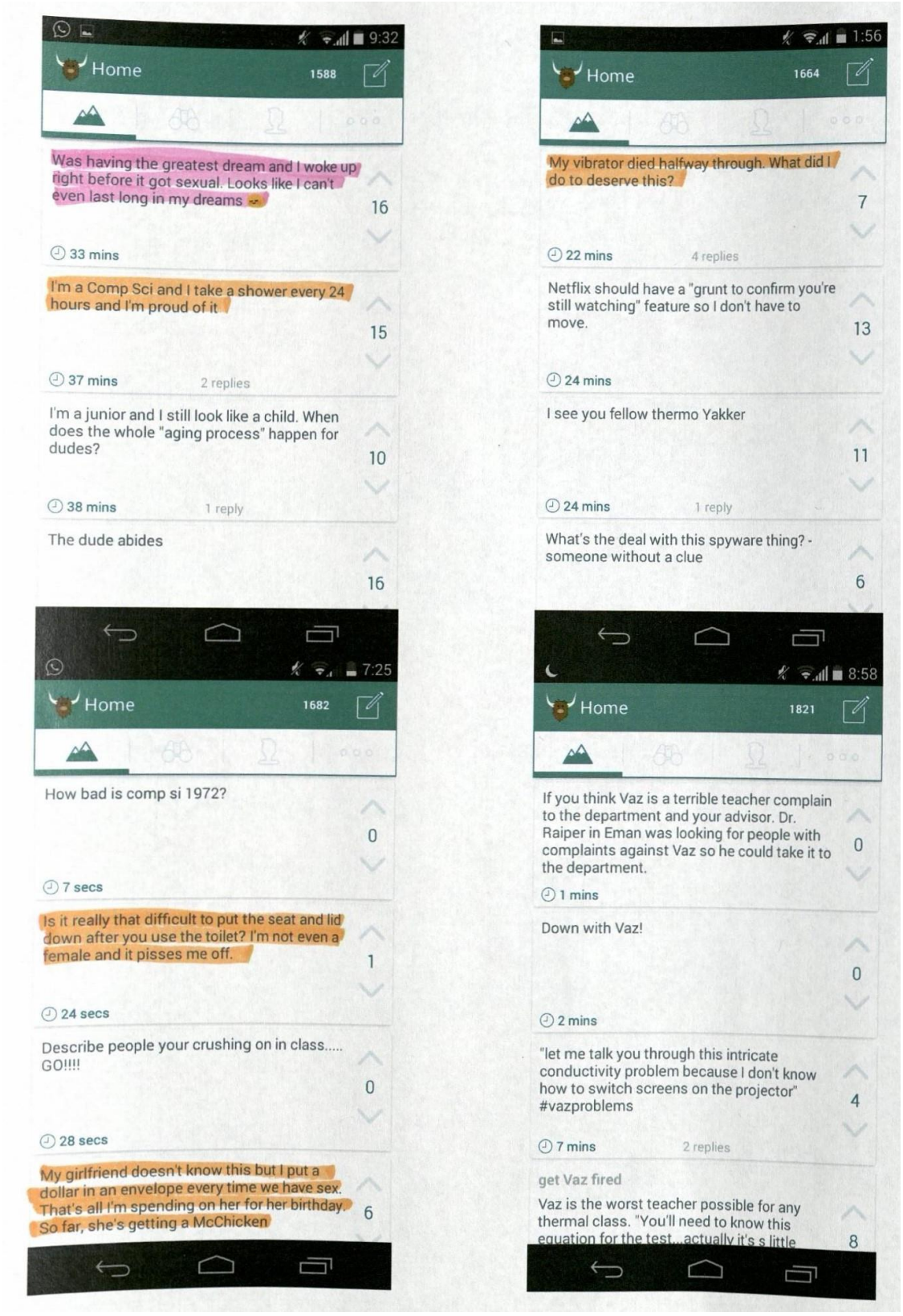

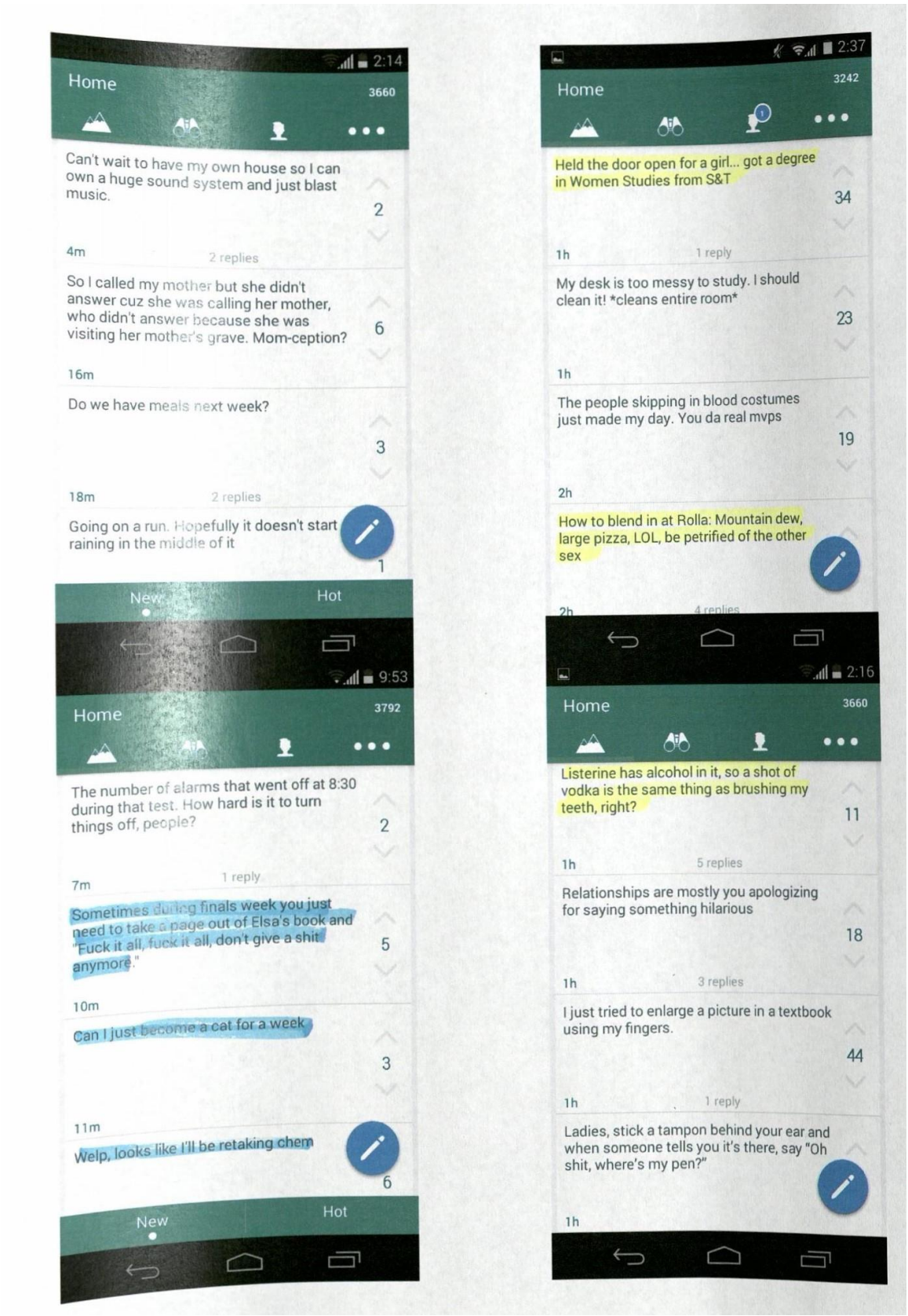

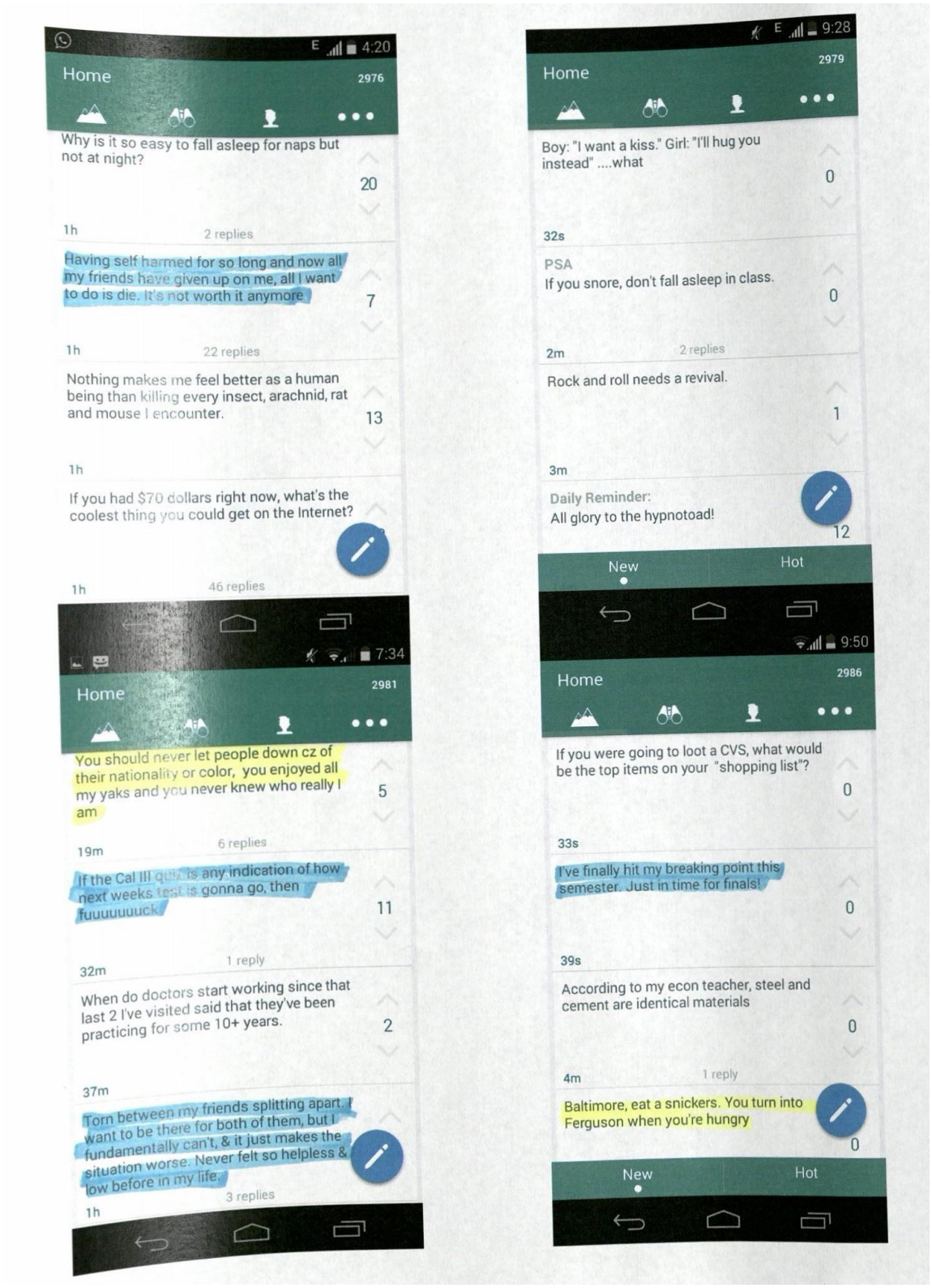

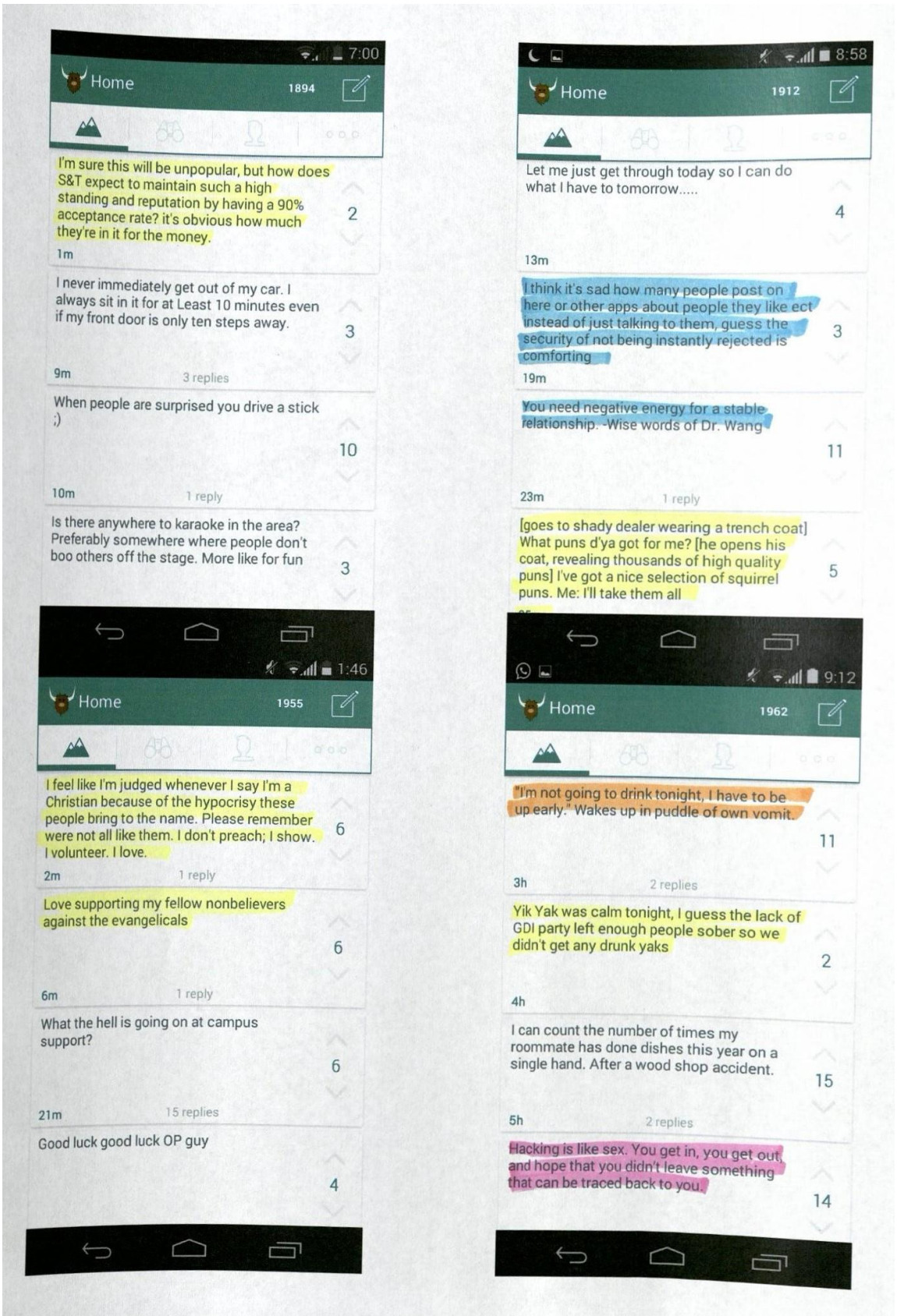

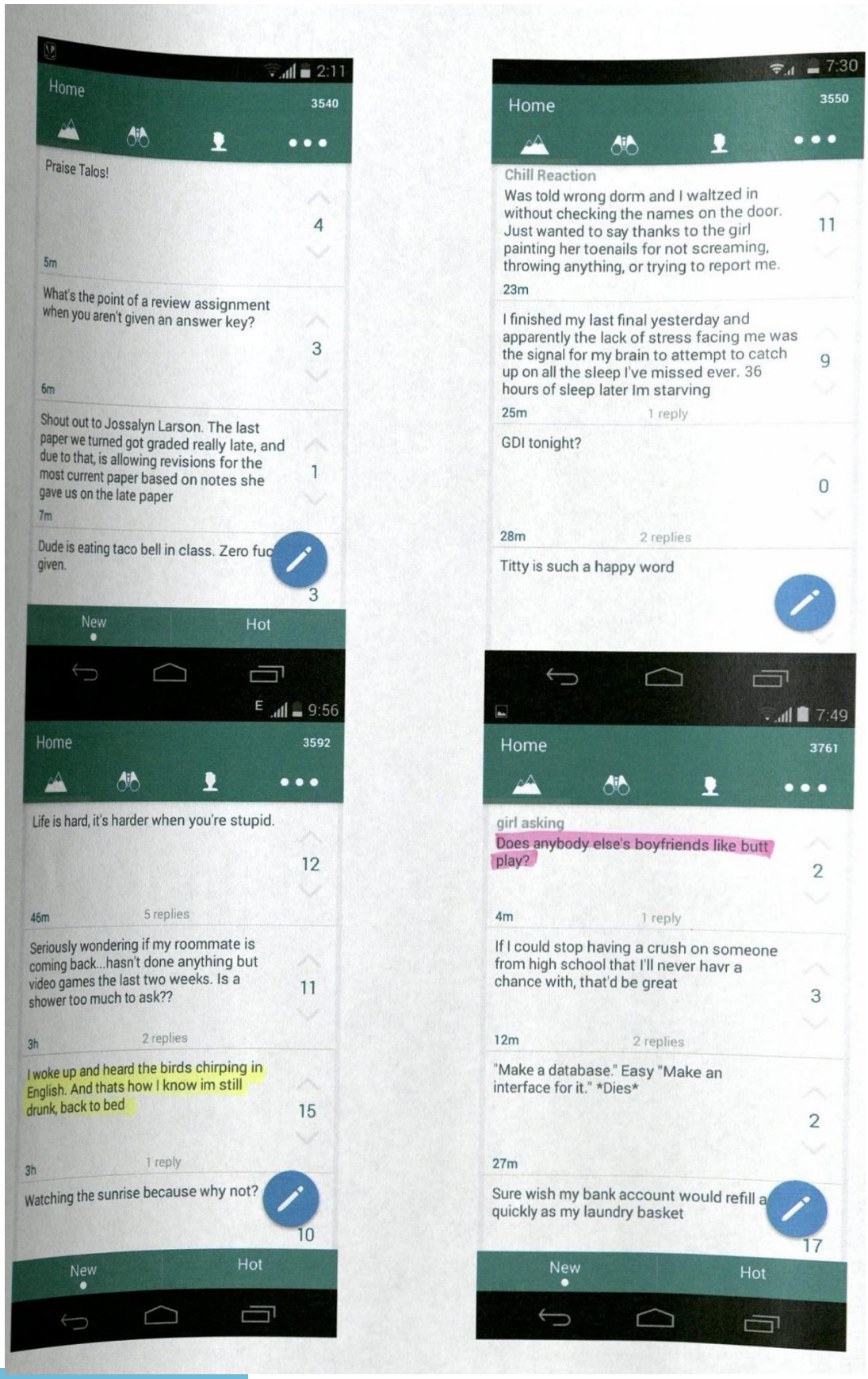

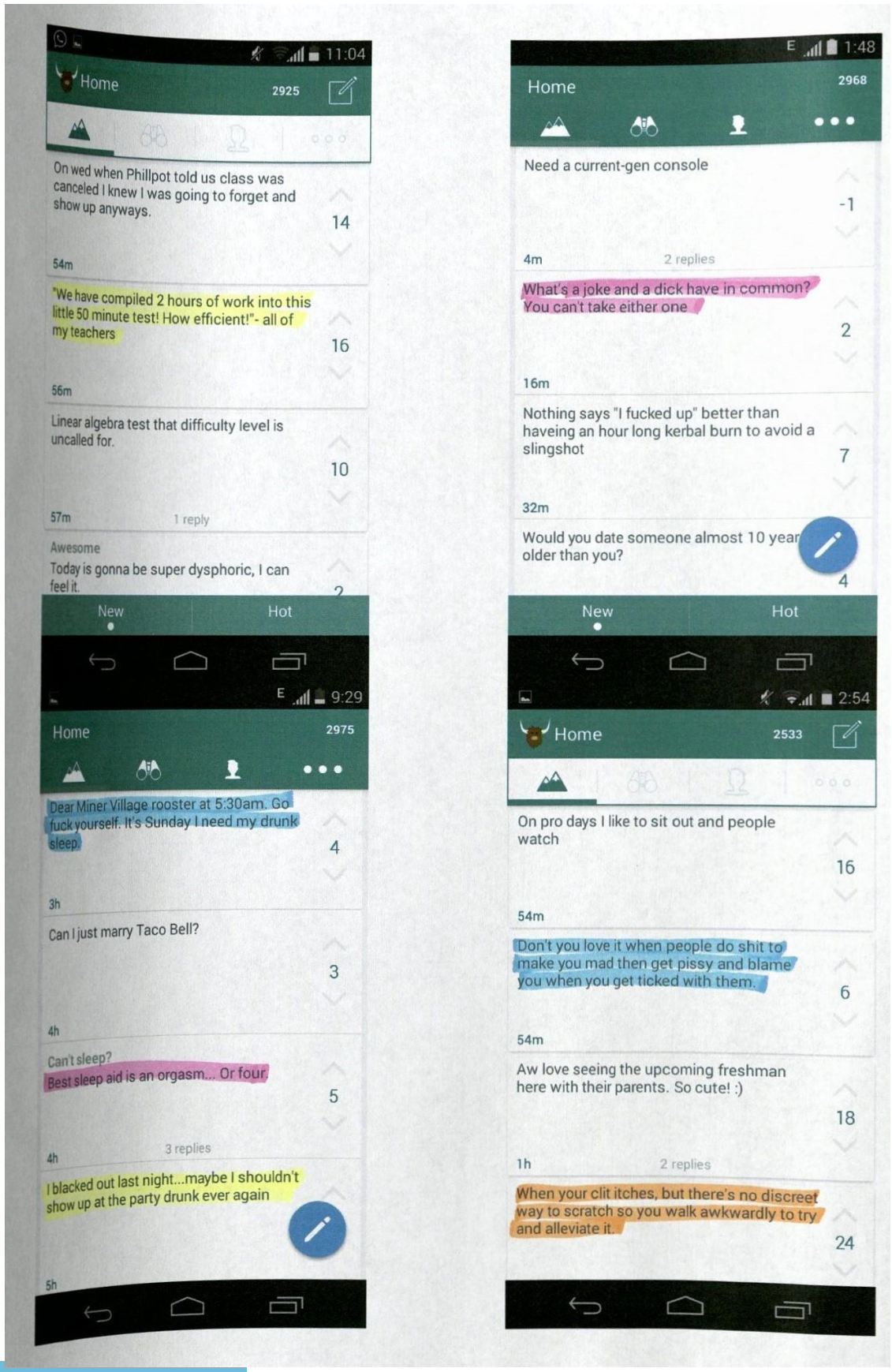

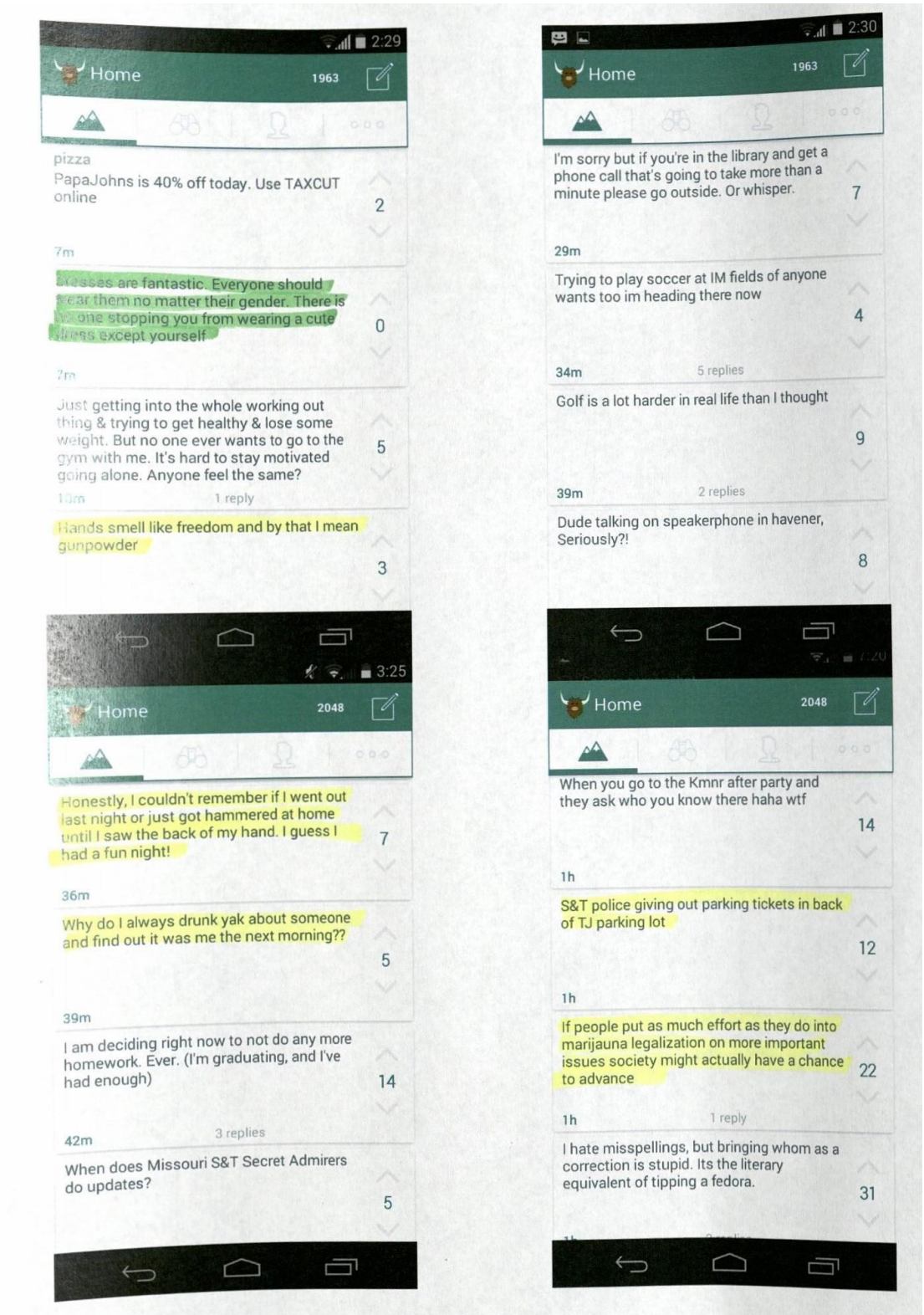

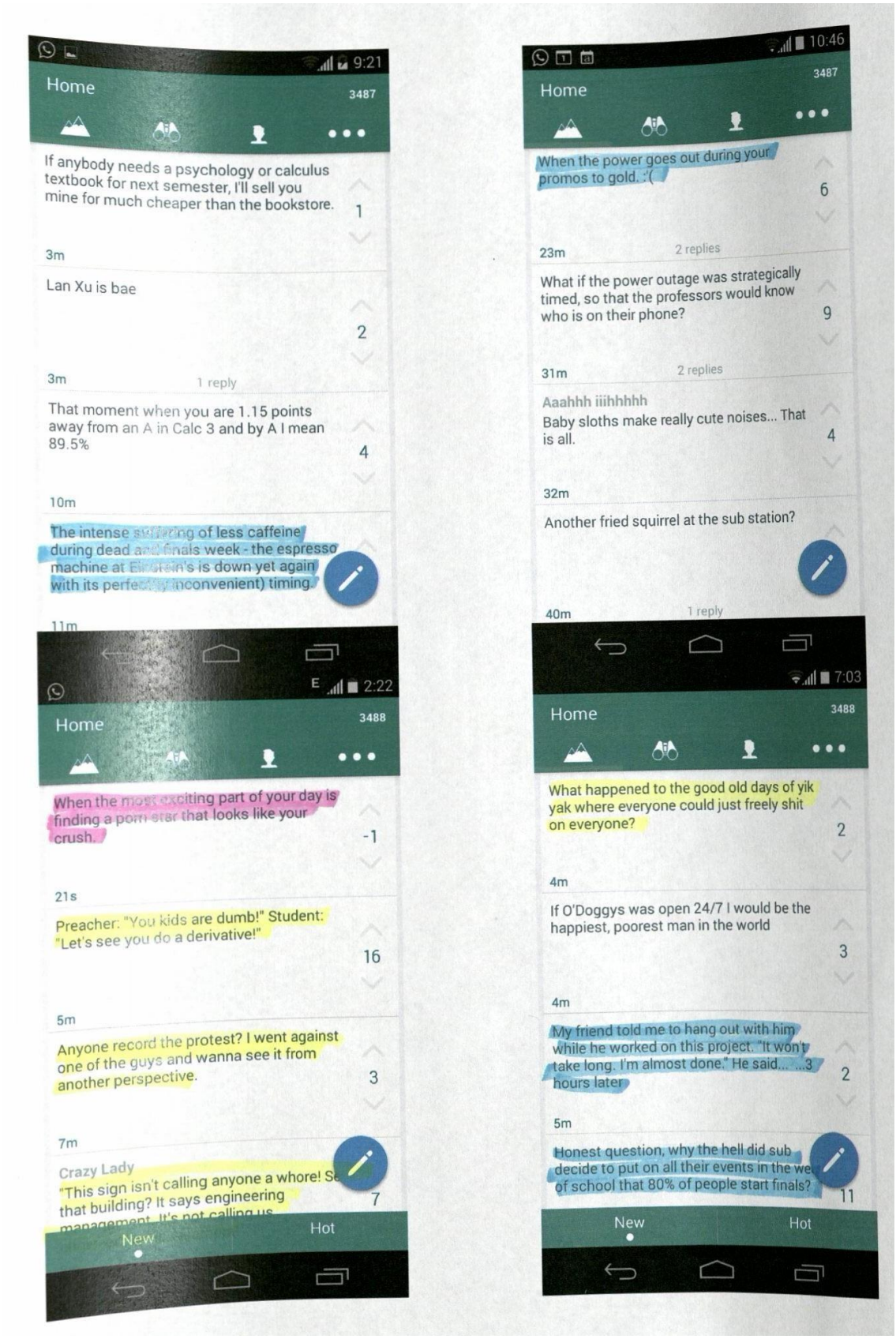

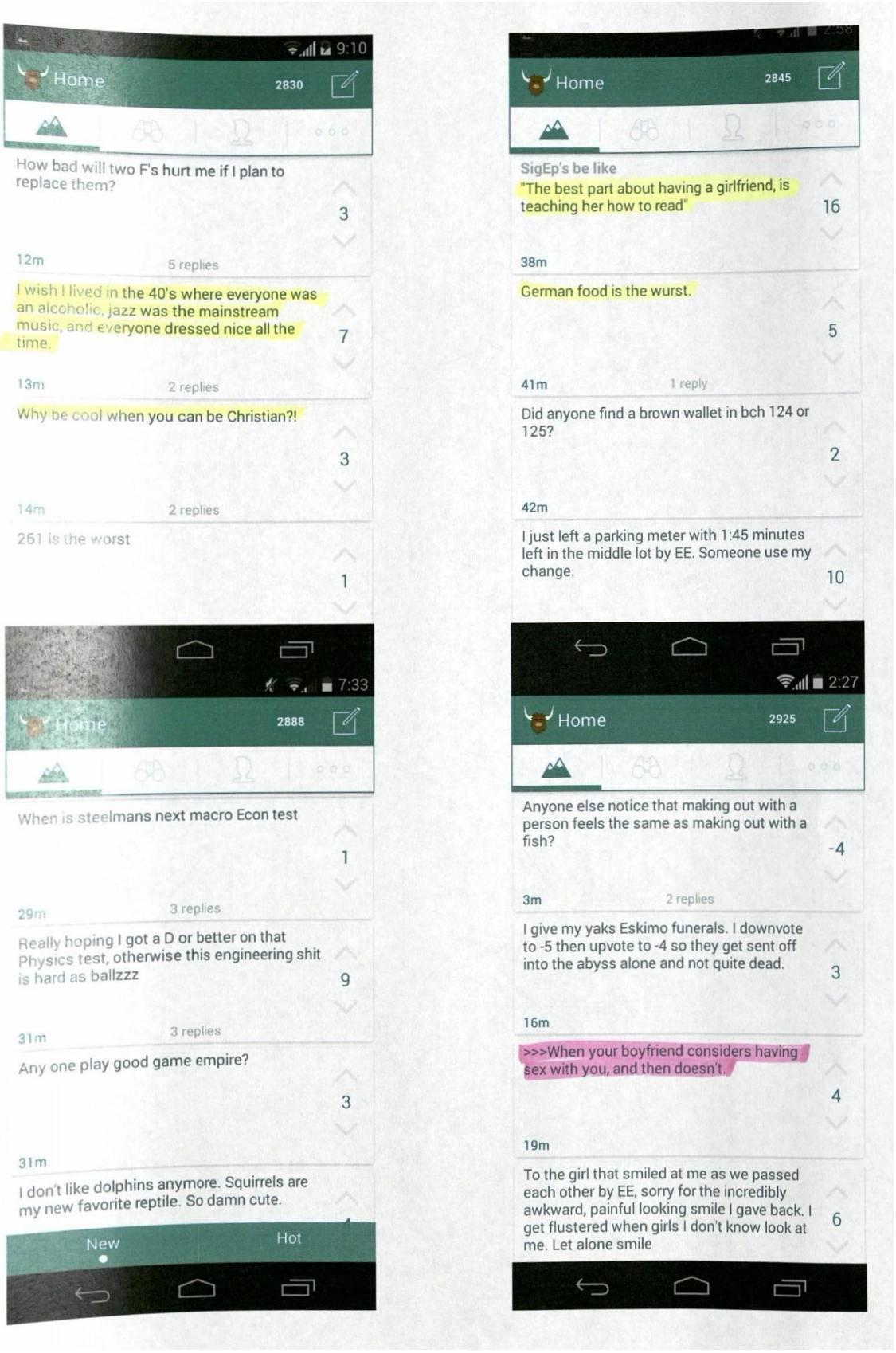

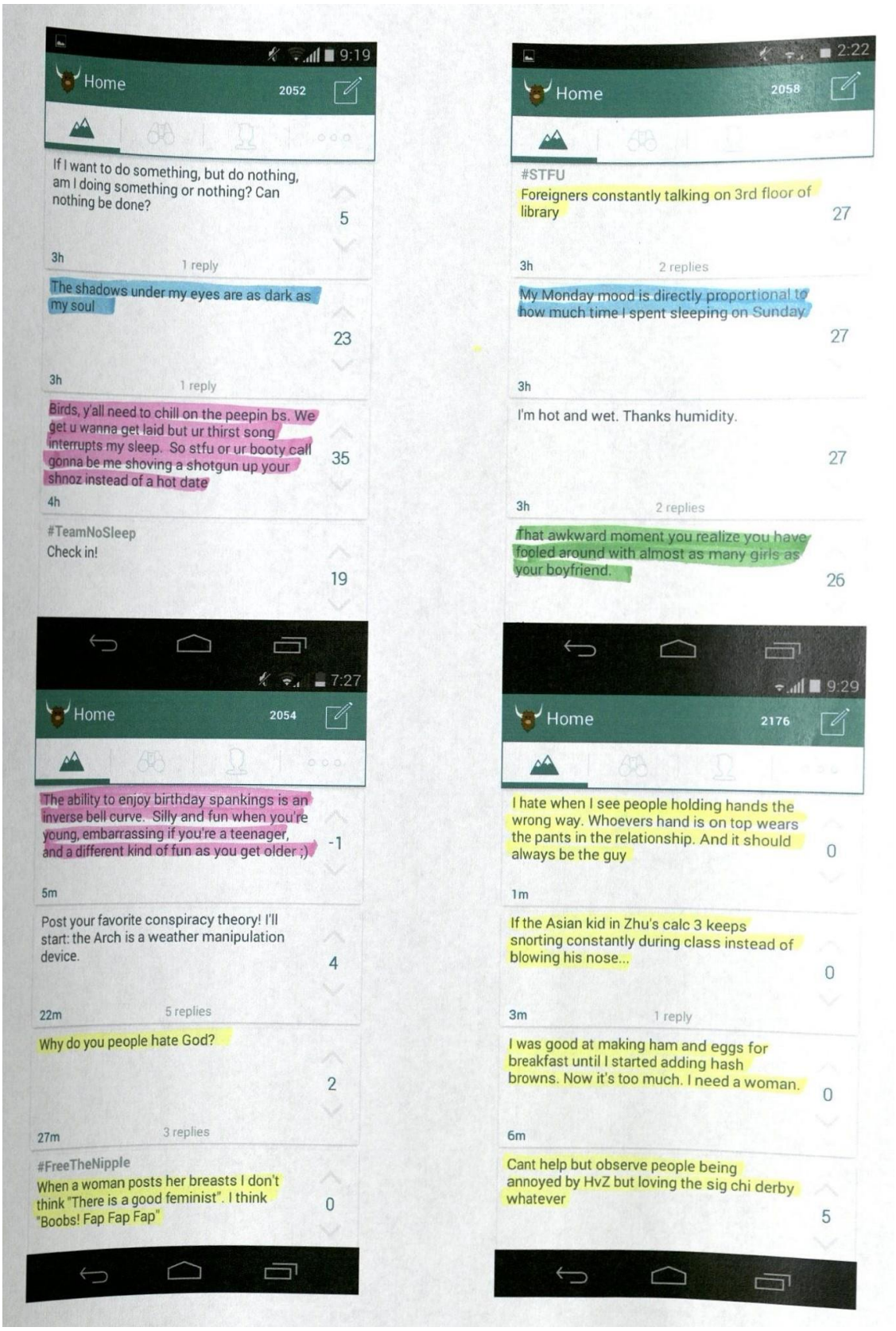

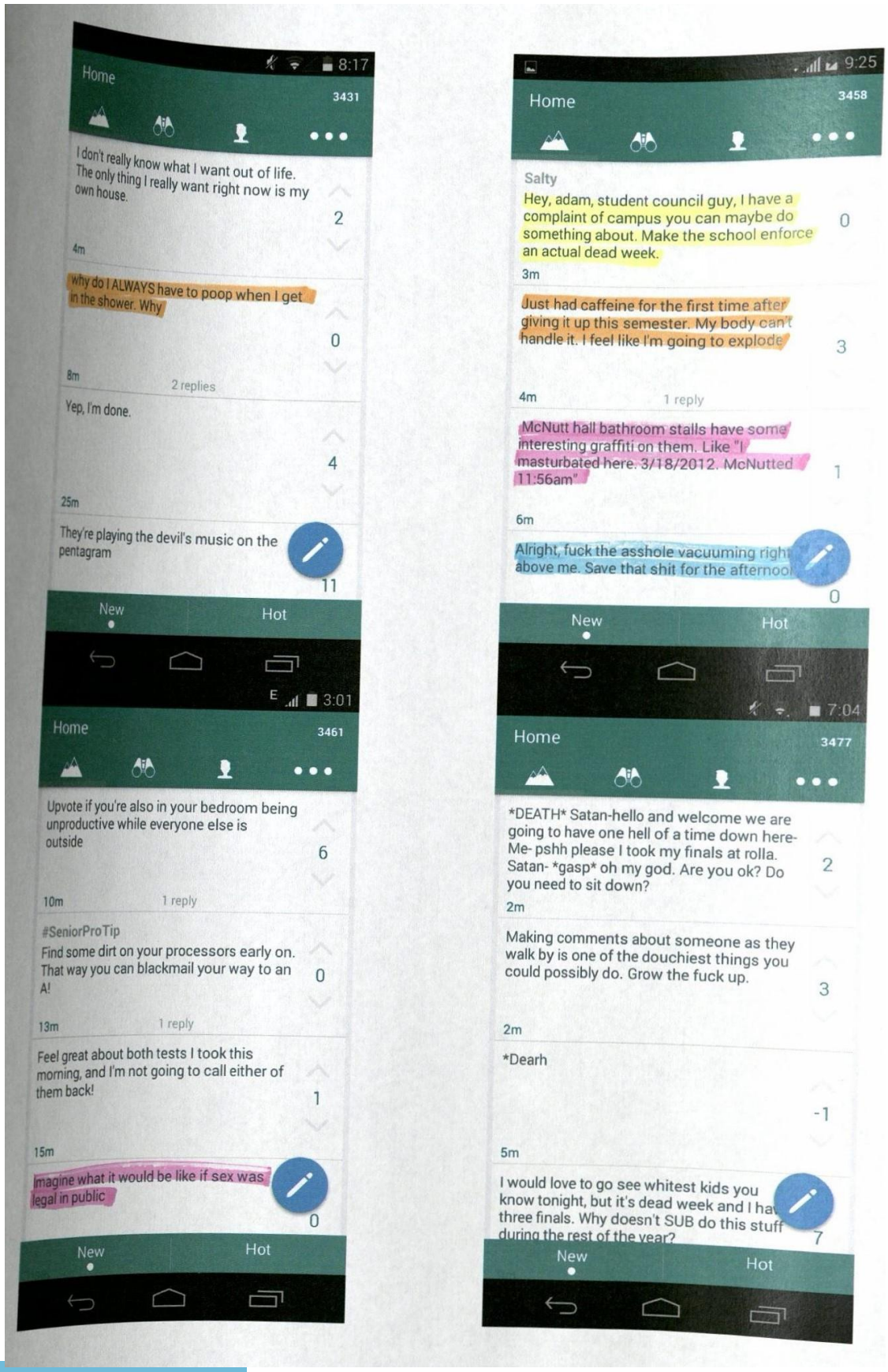

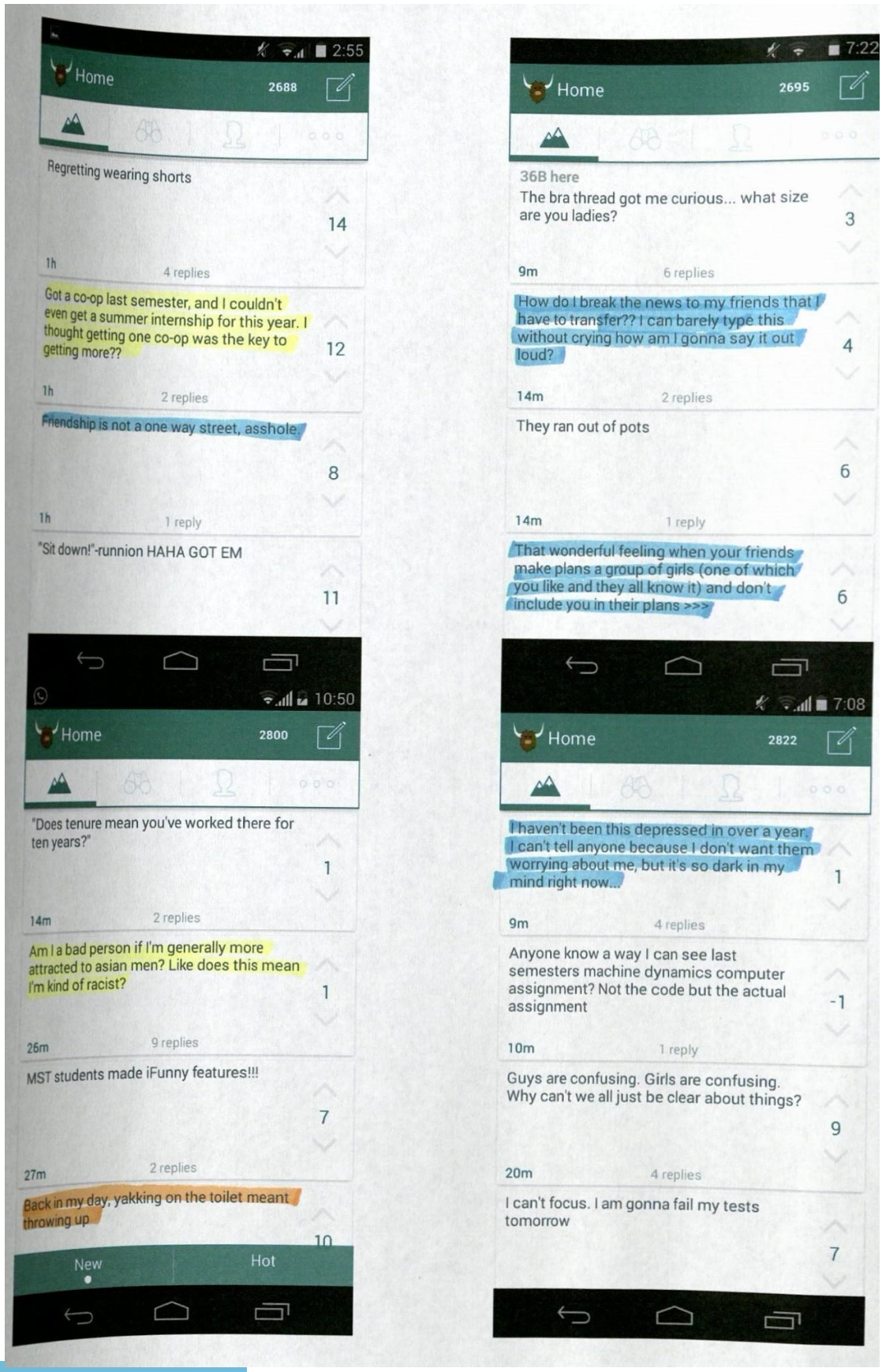

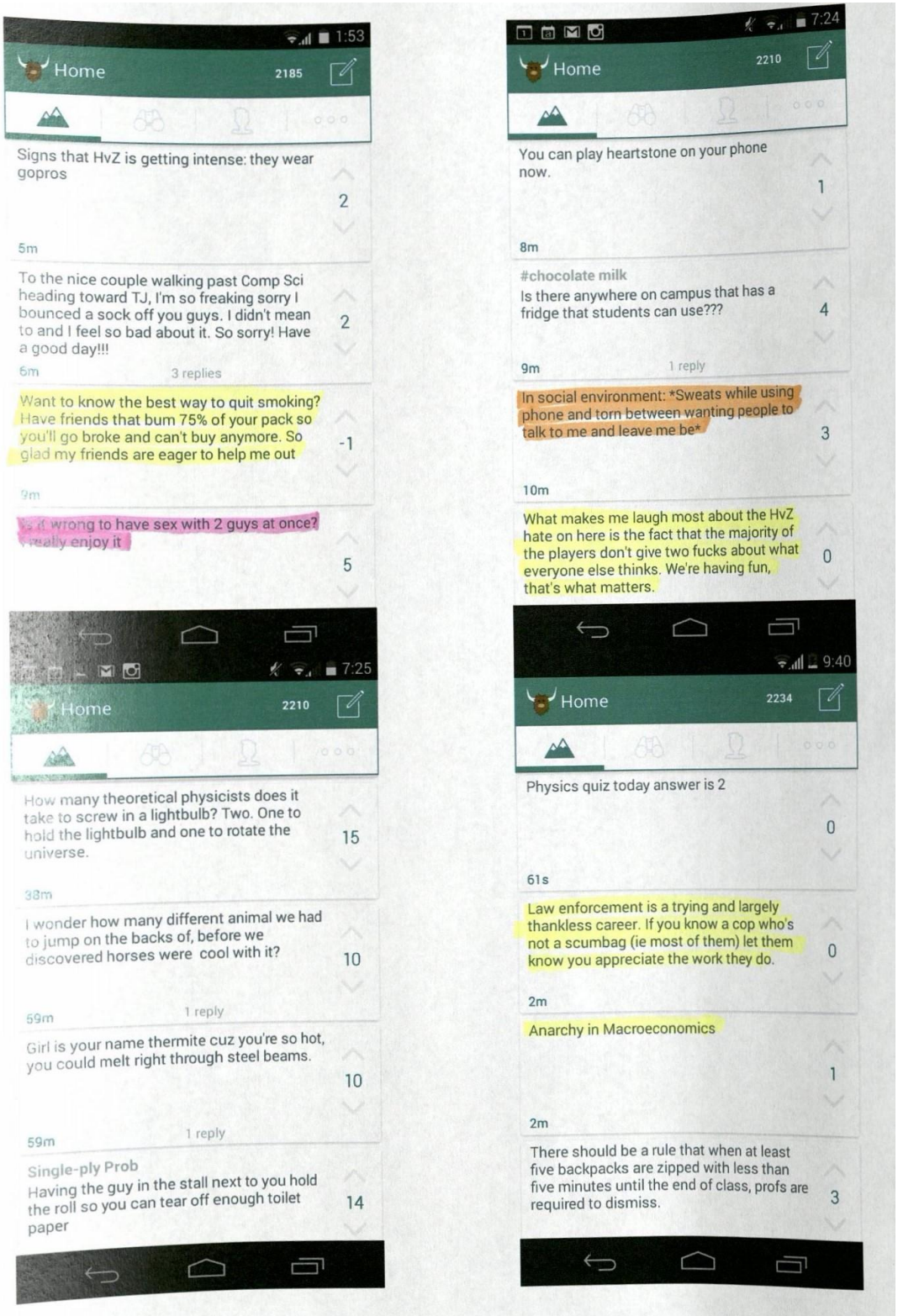

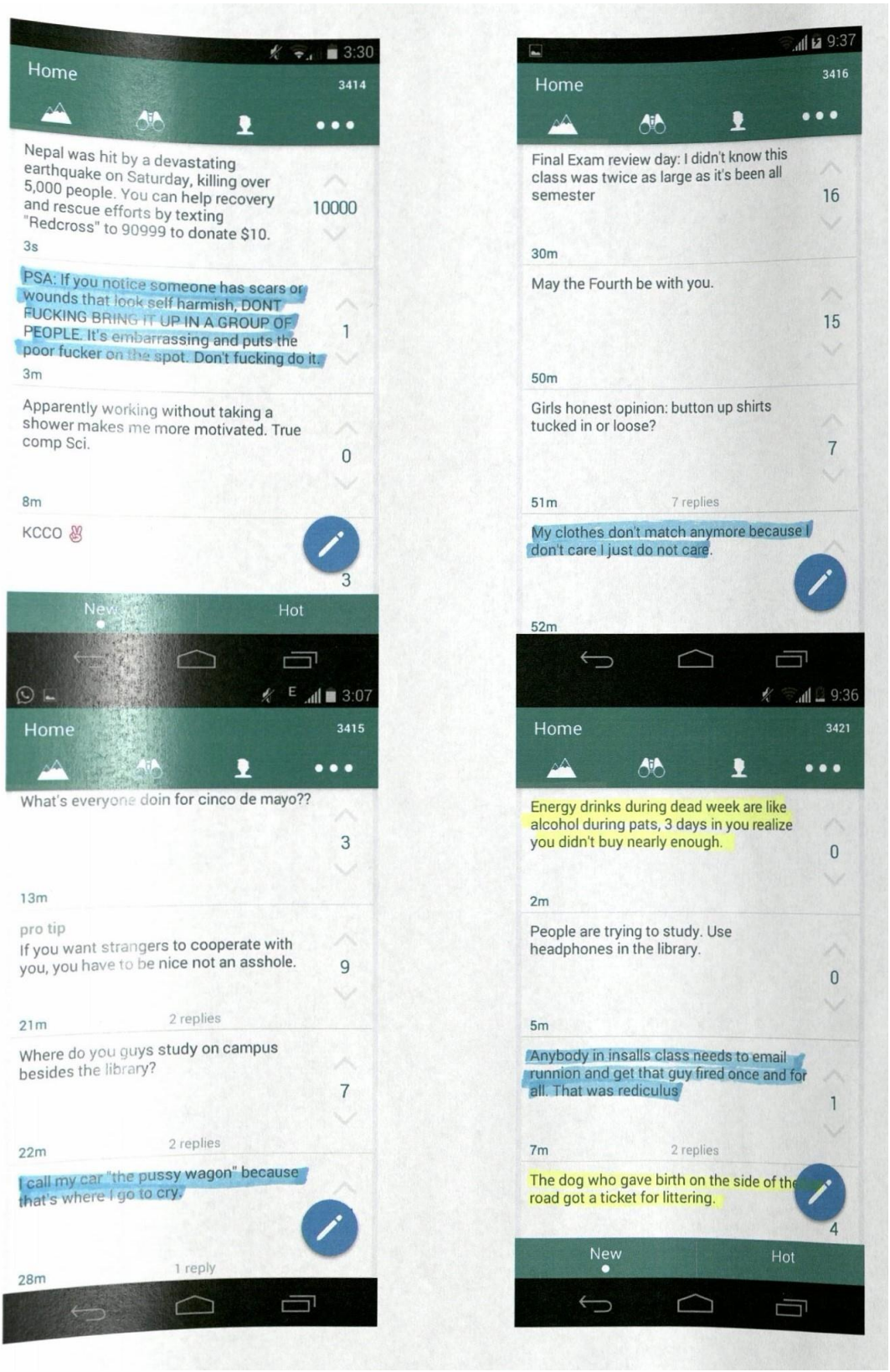

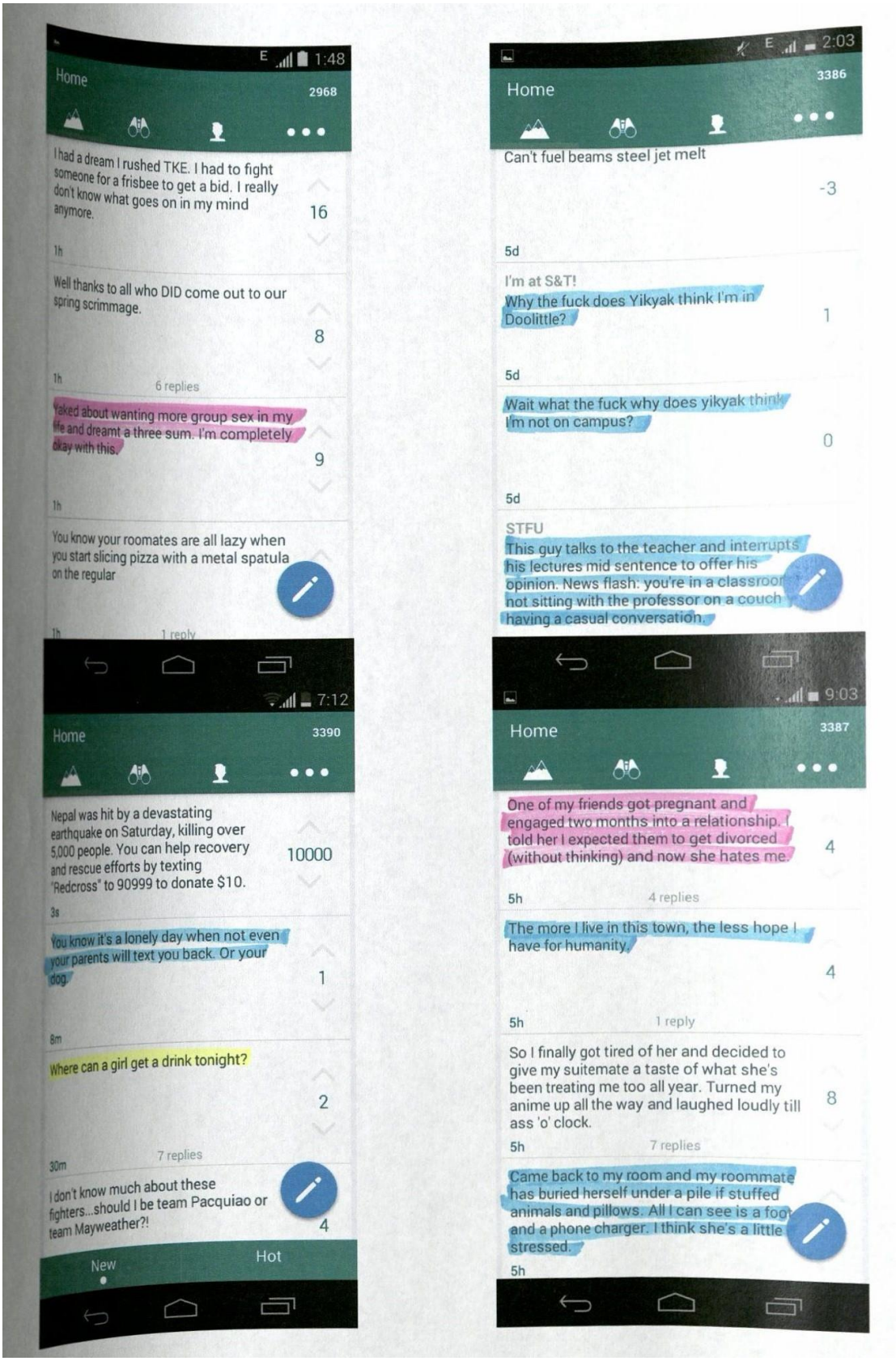

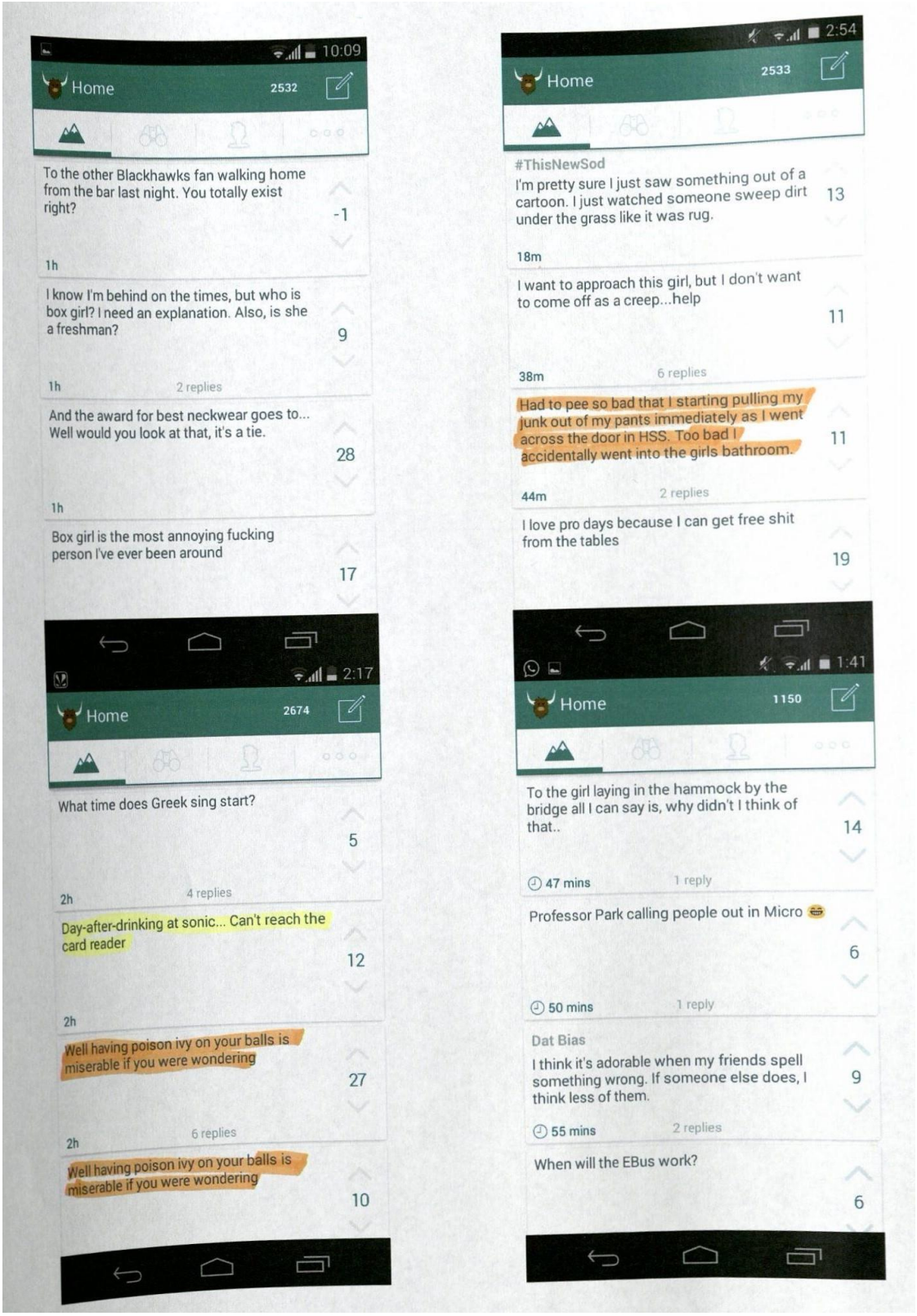


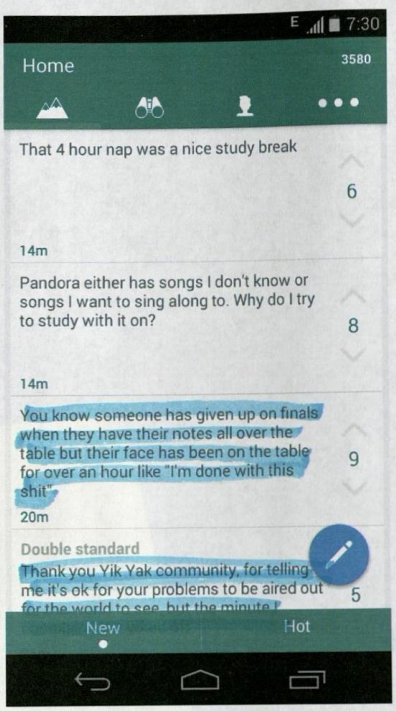

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# VITA

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