



AN ANALYSIS OF USER EXPERIENCE IN THE PRIMARY TERRITORIES OF STUDENT HOUSING THROUGH SOCIAL MEDIA*

ÖĞRENCİ YURTLARININ BİRİNCİL SINIRLARINDAKİ KULLANICI DENEYİMİNİN SOSYAL MEDYA ARACILIĞIYLA ANALİZİ

Simge GÜLBAHAR¹ 
Duygu KOCA² 



ORCID: S.G. 0000-0002-0461-7628
D.K. 0000-0003-4176-8115

Corresponding author/Sorumlu yazar:

¹ Simge Gülbahar

Hacettepe University, Türkiye

E-mail/E-posta:

simgegulbahar@hacettepe.edu.tr

² Duygu Koca

Hacettepe University, Türkiye

E-mail/E-posta: dygsener@gmail.com

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Abstract

This study explores user experiences in the primary territories of student housing provided by a university in Turkey through user-generated content (UGC). Primary territories are private zones where users optimize ownership and privacy in student housing. Students spend most of their times in these spaces during their stay. UGC originates from online platforms on which users can freely contribute their own thoughts, opinions, and experiences. In this study, UGC on YouTube was investigated to analyze students' experiences in terms of the objective and subjective dimensions of primary territories. As a methodology, qualitative content analysis was used. Auditory and visual information from YouTube videos was used as the data set to ascertain user feedback to understand which spatial attributes were of the greatest interest to users for demand-based expectations. The data were analyzed by coding user comments in videos thematically, in regard to objective and subjective dimension of space to understand which experiences or interior elements were more common in primary territories. The study findings highlight interior attributes most frequently mentioned in UGC. The results encompassed experiences that are prominent in user expectations and serve as typical selection criteria for users when making relevant decisions.

Keywords: Student Housing, Primary Territories, User Experience, User-environment Relationship, Social Media.

Öz

Bu çalışma, kullanıcı tarafından oluşturulan içerikler (UGC) aracılığıyla Türkiye'deki üniversiteler tarafından sağlanan öğrenci yurtlarının birincil mahremiyet sınırlarındaki kullanıcı deneyimlerini araştırmaktadır. Bu sınırlar, kullanıcıların öğrenci yurtlarındaki sahiplik ve mahremiyet en verimli şekilde değerlendirdikleri özel alanlardır. Öğrenciler, zamanlarının çoğunu barındıkları süre boyunca bu alanlarda geçirirler. UGC, kullanıcıların kendi düşüncelerini, görüşlerini ve deneyimlerini özgürce paylaşabildikleri çevrimiçi platformlardan oluşmaktadır. Bu çalışmada, YouTube'daki kullanıcı üretimi içerikler üzerinden, öğrencilerin birincil sınırlardaki nesnel ve öznel boyutları açısından deneyimlerini analiz etmek için incelenmiştir. Bir yöntem olarak nitel içerik analizi kullanılmıştır. YouTube videolarından gelen işitsel ve görsel bilgiler, kullanıcı taleplerine dayalı beklentileri anlamak için veri seti olarak kullanılarak kullanıcıların en çok ilgi gösterdiği mekansal özellikleri belirlemek amacıyla kullanılmıştır. Veriler, videolardaki kullanıcı yorumlarını nesnel ve öznel mekan boyutları açısından tematik olarak kodlayarak hangi deneyimlerin veya iç mekan öğelerinin bu alanlarda daha yaygın olduğunu anlamak için analiz edilmiştir. Çalışma bulguları, UGC'de en sık belirtilen iç mekan niteliklerini vurgulamaktadır. Sonuçlar, kullanıcı beklentilerinde öne çıkan ve kullanıcıların temel seçim ölçütü görevi gören deneyimlerini kapsamaktadır.

Anahtar Kelimeler: Öğrenci Yurtları, Birincil Sınırlar, Kullanıcı Deneyimi, Kullanıcı-çevre İlişkisi, Sosyal Medya.

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INTRODUCTION

University students attach high importance to environments that directly influence their living and learning experiences (Simpeh & Shakantu, 2020, p. 215). Student housing that accommodates these experiences contributes to the quality of students' university lives. On-campus student housing is one type of student housing that ensures intellectual competence and helps form students' behavior and imagination by leading their living experiences (Hassanain, 2008, p. 214).

Student housing accommodates a wide range of user profiles, meeting the various preferences and needs of students in interior spaces. Primary territories in student housing include private spaces over which individuals have control, either on a floor or within a residence group. Students often explore alternative uses of their space, even though the essentials are provided in student rooms. The diversity of users in student housing demonstrates widespread engagement with fixed spatial scenarios and makes the user experience highly variable. For this reason, it is essential to investigate students' experiences to understand what comprises an effective living experience in student housing.

Recent growth in the number of students in Turkey (Eşidir, 2017, p. 101) underlines the importance of renovating existing and building new student housing. On-campus university housing needs strengthening in terms of quality and the user–environment relationship (Eşidir, 2017, p. 134). Therefore, it is crucial to examine students' experiences in their accommodations on university campuses. In Turkey, students' experiences with student housing have been evaluated for user satisfaction in terms of bedrooms (Beder & Imamoğlu, 2023, p. 2307-2323; Çağatay et al., 2014, pp. 53-72; İnceoğlu, 1995, p. 14-16; Kaya & Erkip, 2001, p. 35-53; Öztürk & Dincer, 2020, p. 47-61; Yıldırım & Uzun, 2010, p. 519-530). These studies assessed the performance of specific buildings in terms of user satisfaction and user expectations via data collected from surveys and questionnaires. However, there is a need to observe user expectations of on-campus housing naturally to obtain a fuller understanding of user from user opinions. This can be done using social media platforms because they provide user opinions that are shared proactively. Although there is a wide range of user profiles, there are common happenings in student interactions within primary territories. The issues discussed reflect the main demands that significantly impact the use of these spaces and, consequently, user satisfaction. For this reason, the prioritized elements of interior spaces need to be revealed to determine how to ensure optimal user satisfaction.

Primary territories in student housing are those in which users have a high level of interaction with the space due to spending a significant amount of time spent there. The increasing demand for privacy and personal space in student housing (La Roche et al., 2010, p. 50) necessitates a focus on student experiences in primary territories because it affects user satisfaction with student housing. Architectural variables correlate with user satisfaction in different level (Amole, 1999, p. 45-68; Davis & Roizen, 1970, p. 28–44): understanding all aspects of the environment is crucial to enhancing user experiences within these areas. User experience is categorized under the objective and subjective qualities of architectural space to maintain user satisfaction (Bittencourt et al., 2015, p. 6429-6436). Users' individual approaches are critical for optimizing the utilization of limited resources in spaces.

This study aims to investigate users' experiences in finding demand-based elements in the primary territories of on-campus student housing in Turkey. Prior elements for fulfilling the student housing experience and user interventions in primary territories will be scrutinized through social media. Information given by users regarding the objective and subjective dimensions of space will be collected. UGC was chosen as data source because it reflects priorities about the use of a product within users' own experiences. Naab and Sehl (2017, p.1258) define UGC as an amateur publishing method that contains theoretically reasonable analyses of user or customer. For this reason, UGC on social media was chosen as the data source. Within the scope of this study, the following research questions will be answered by UGC:

RQ1: “Which interior attributes fulfill students' housing experience needs according to UGC posted by users?”

RQ2: “Which interior attributes are improved by users' interventions in primary territories?”

UGC on YouTube was used as a dataset and analyzed to answer the RQs. Social media is a popular way for potential users to gather feedback about a product in a new social milieu. Prior to 2010, UGC was used as a tool for connecting people with similar interests, but after 2010, the motivation shifted toward fostering the creation and dissemination of UGC (Aichner et al., 2021, p. 220). Additionally, UGC contains a self-inclusive approach in which the experience belongs to the user (Ulqinaku et al., p. 2023). Therefore, UGC was examined because the content contains highly interactive situations that students experience in student housing. Emerging subjects from the content can highlight situations in which student housing was initially attractive to users.

The analyzed data from this study contain spatial elements in terms of the functional and social features of primary territories in student housing. The findings were reviewed to understand the variety of user experiences. The features corresponding to these experiences in student housing were then classified in terms of positive and negative feedback. These results bridged the knowledge gap by identifying interior attributes and how they affect user experiences to improve the design of primary territories.

LITERATURE REVIEW: PRIMARY TERRITORIES IN STUDENT HOUSING

A primary territory is a living unit type for which it is important to maintain quality while supporting ownership and agent control (McCartney & Rosenvasser, 2022, p. 3). For university students, bedrooms afford the highest control in terms of the spaces within which they interact during their university stays. The spaces in these territories, which students must sometimes share with 1–3 other students, bring about certain differences in use. Most bedrooms have single, double, or multiple occupancies and provide a bed, storage, and desk for each occupant, and sometimes they have a sink inside the room (Arkitekt, 1970, p. 33-35; McCartney & Rosenvasser, 2022, p. 2). Traditional forms of student housing contain bedrooms and common areas such as a kitchen, bathroom, lounge, and study rooms (İnceoğlu, 1995, p. 16; McCartney & Rosenvasser, 2022, p. 2). Suite types are defined as a group of private or semi-private rooms that have hygiene facilities and a shared space used for socialization or study offered within the unit and are situated on both sides of a central corridor or space (Mccartney & Rosenvasser, 2023, p. 446). Apartment types are defined as having all hygiene and cooking facilities offered within the unit for single, double, or small-group occupancy (Mccartney & Rosenvasser, 2022, p. 2, 2023, p. 446).

These unit types accommodate different interior attributes to be experienced. Bedroom quality is one of significant evaluative dimensions (Amole, 1999, p. 63) and predictor variable (Amole, 2009, p. 83) that critically delineates user satisfaction. Despite the fact that different types of primary territories indicate different interfaces for the user, they contain the same functions within different architectural layouts. Architectural space is classified as the objective and subjective dimensions of space that describe user interaction. The objective dimension is the physical entities of the interior, such as accessibility, readability, orientability, environmental comfort, functionality, and safety (Bittencourt et al., 2015, p. 6433). The subjective dimension is related to the cognitive and psychosocial aspects of the user in relation to the built environment (Bittencourt et al., 2015, p. 6433). The user experience in primary territories will be described under these dimensions of space to provide user satisfaction. These dimensions are also related to interior attributes based on either user activity or elements in the space.

Objective Dimensions Of Space In Primary Territories

The objective dimension considers the physical attributes that affect user interaction during an activity in a space. These attributes contain features related to accessibility, environmental factors, ergonomics, and orientation in student housing (Bittencourt et al., 2015, p. 6432). Knowing which activities will be performed is important for deciding the functional requirements and materiality of rooms.

Students' primary activities in their bedrooms include resting and studying. In some cases, hygiene and dining also occur in primary territories, depending on the unit type. Study is a fundamental activity for students and thus a key consideration in the architecture of student housing. The materiality of bedrooms needs to be suited for students to facilitate appropriate conditions for learning (Card & Thomas, 2018, p. 581). Heilweil (1973, p. 392) summarized the features of an efficient study activity as those that provide space to study alone and are free from distraction and noise.



Acoustics and lighting are significant environmental factors in student housing in terms of study and resting. Acoustic comfort impacts the quality of resting and studying. The location of a room in the building also impacts acoustical comfort regarding user density. For example, one study found that residents of the highest floor in a building were more satisfied with their rooms than residents of the lowest floor due to the frequency of hallway use (Kaya & Erkip, 2001, p. 45). Therefore, having a room near high circulation areas will affect the acoustics and could create unsatisfactory conditions. In this case, the lower floors of the building and the rooms with high occupancy intersected with noisy areas. The optimal lighting design includes a comfortable and healthy visual environment that supports the occupants' activities (Hassanain, 2008, p. 215). Decisions about lighting in primary territories are critical, especially in shared rooms. It is necessary to provide a comfortable study environment by including individual lighting that promotes personal use, especially in shared rooms. Pride (2008, p. 9) stated that task lighting which serves for individual use must accompany general artificial lighting in bedrooms.

Room layout also affects user satisfaction. The density of furniture in the room is an important element in bedrooms to provide positive visual perception (Yıldırım & Uzun, 2010, p. 529). Rooms should have furniture of the appropriate size for the space to provide user comfort and orientation. The interior layout of buildings should be efficient for circulation (Hassanain, 2008, p. 216), as the location of rooms affects accessibility to common areas. Çağatay et al. (2014, p. 69) found that room density in bedrooms influences user satisfaction. User density also impacts the circulation efficiency of a room.

Storage is one of the physical facilities of student housing in providing user satisfaction (Amole, 2009, p. 80). In some cases, students often solve storage issues by putting clothes in their luggage (Ağaç et al., 2015, p. 196). Computers and smartphones are central to students' lives. Therefore, technological devices also affect strategies for electrical equipment storage in bedrooms (Heilweil, 1973, p. 397). Utilization of electronic devices also keeps changing due to the transformation in educational philosophy effecting study activities and materials.

Subjective Dimensions of Space In Primary Territories

The subjective dimensions of space are classified as attachment, security, identity, independence, and familiarity (Bittencourt et al., 2015, p. 6433), as they point to the social side of the user–environment relationship. The social attributes of primary territories are considered to be privacy, neighbors, security and safety, social densities, freedom of choice, social relations, and personalization (Amole, 2009, p. 77).

Having a sense of home is important to students, even though their university stay is temporary (Thomsen, 2007, p. 583). Good aesthetics help create a pleasing, homey environment (Thomsen, 2007, p. 594). Pride (2008, p. 9) suggested that furniture and fittings should have less institutional character because personalization is part of the process of creating a feeling of home. The nature of personalization in student rooms generally depends on students' culture and gender (Kaya & Weber, 2003, p. 411).

Sharing primary territories with a small number of people encourages social skills among students (Amole, 2009). However, the extension of bedrooms as communal areas for a small number of students is not effective in motivating social interaction among students (Thomsen, 2007, p. 595). Privacy is an important social regulator to consider in student housing. Primary territories in student housing have the highest level of engagement between users and spaces, and privacy limits established by interior elements contribute to defining personal space within shared rooms. Clear guidelines in bedrooms help residents understand the boundaries and expectations of respecting each other's space. Building an identity is important to defining these territories in a shared environment. A pleasant view of the surroundings from the room window is also an indicator of the privacy level in primary territories (Abu-Obeid & Ibrahim, 2002, p. 238; Nazarpour & Norouzian-Maleki, 2021, p. 518). The existence of an opportunity for students to create a moment of isolation in the room provides self-motivation, and the quality of the view from the window supports their motivation in terms of attachment.



Davis and Roizen (1970, p. 37) stated that the purpose of student housing should be to cultivate an atmosphere in which students feel encouraged to embrace their unique identities and express themselves authentically. Students experience a fixed organization with limited opportunities for personal modification. Furniture design should contribute to the process of individualization by allowing for movable parts, since built-in furniture provides less opportunity to do so (Heilweil, 1973, p. 395). Most regulations do not allow major decorations to prevent damage (Heilweil, 1973, p. 395), and create difficulties establishing home (Thomsen, 2007, p. 582). However, students want to decorate their rooms according to their tastes so they can feel at home (Eghbali, 2023; Thomsen, 2007, p. 593), and they like to connect decorations with the context (Eghbali, 2023). Çağatay et al. (2014, p. 70) stated that a lack of decorative and personal items has negative effects on user satisfaction in student rooms. Details in rooms that are flexible allow students to decorate their rooms according to their tastes.

METHOD AND MATERIALS

User-generated content (UGC) was chosen to investigate because it reflects priorities about the use of a product within users' own experiences. YouTube is a popular social media platform (Smith et al., 2023; TÜİK, 2023), that has become a data source for user experiences and behavioral research (Snelson, 2011, p. 167). Users participate in these platforms with intrinsic motivation: to share their experiences using a product or space to inform other people. The content has its own nature because users are not directed by a researcher, and they include subjects that are a priority for future users. Doing this without the user's intervention, while carrying a subjective theme from a post-positivist perspective, is valuable because the evaluations reflect thoughts that are not influenced by the user (MacCarthy, 2023).

Qualitative content analysis was applied as method in this study as UGC has large volume of textual and visual data. Qualitative content analysis was based on naturalistic inquiry with systematic stages in analysis of data through coding process (Cho & Lee, 2014, p. 15). It also has flexibility of using both the inductive and deductive approaches for coding in data analysis (Cho & Lee, 2014, p. 16). The goal of content analysis is to achieve a concise and comprehensive depiction of the phenomenon, with the result of the analysis being concepts or categories that describe it (Elo & Kyngäs, 2008, p. 108). Therefore, it is a suitable method for collecting and analyzing data systematically due to the diversity of content on the selected data platform. Figure 1 demonstrates the process using in methodology of research.

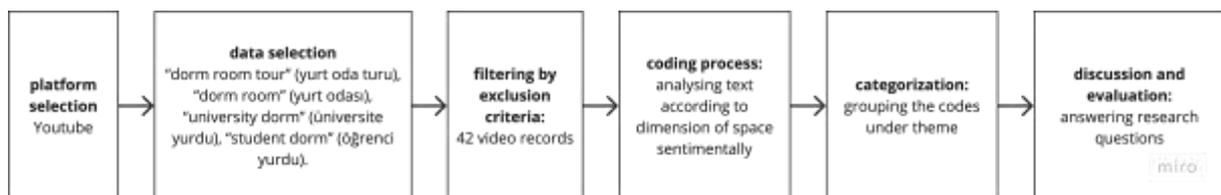


Figure 1. Flow of methodology.

In this study, YouTube videos uploaded by students were investigated to understand their experiences in the primary territories of student housing. The videos provided both visual and audio data, which allowed the researchers to construct relationships between the audio and visual material. Searches were conducted on YouTube with keywords (in Turkish), such as “dorm room tour” (yurt oda turu), “dorm room” (yurt odası), “university dorm” (üniversite yurdu), and “student dorm” (öğrenci yurdu). Additionally, related videos reached by filtered videos in the first search string were manually included in the samples. Screening was conducted in January 2024. Student housing not provided by a university was an exclusion criterion when screening the videos. Additionally, videos with content from a student association or organization or from a university were excluded because their purpose was promotion. The Covid-19 pandemic necessitated the transition to online education, leading many students to return to their family homes. Therefore, videos posted prior to September 2021 were excluded because education returned to face-to-face learning in universities after the Covid-19 pandemic. As a result, forty-two videos were found.

The forty-two videos, which were publicly available, underwent content analysis. The characteristics of

the content were listed as city, university type, gender, year and type of primary territory while recording. Next, an analysis of the auditory and visual materials was conducted in close alignment with suggestions from Hsieh and Shannon (2005, p. 1281), regarding the directed approach of content analysis. Users' sentimentally reflected comments were captured in videos as guidance for initial codes related to an interior attribute, considering the objective and subjective dimensions of space. After that, the text was read closely to determine the initial coding scheme for the interior attributes. Finally, the visual materials were analyzed by observing physical traces that reflected the codes.

FINDINGS

Content (n = 42) gathered from YouTube was categorized according to its descriptive details (Table 1). The content came from students living in three metropolitan cities in Turkey and was nearly equal in terms of the number of students from state universities (52,4%) and private universities (47,6%). There was more content from female students (78,6%) than from male students (21,4%). Most of the content was posted in 2022 (61,9%). The bedroom types included the traditional form (61,9%), suites (26,2%), and apartments (11,9%).

Table 1. Details of forty-two YouTube videos.

Item	Content	Video	Total (n=42)	
City	Ankara	V5,V6,V7,V9,V14,V15,V16,V17,V22,V24,V28,V29,V30,V31, V34,V35,V36,V37,V40,V41,V42	22	52,4%
	İstanbul	V1,V2,V3,V4,V10,V11,V12,V18,V19,V20,V21, V23,V25,V26,V27,V32,V33,V38,V39	19	45,2%
	İzmir	V13	1	2,4%
University Type	Private	V1, V2,V3,V4,V5,V10,V12,V16,V18,V21,V23, V25,V26,V27,V32,V33, V38,V39,V40,V42	20	47,6%
	State	V6,V7,V8,V9,V11,V13,V14,V15, V17, V19, V20, V22, V24, V28,V29, V30,V31,V34,V35,V36,V37,V41	22	52,4%
Gender	Female	V1,V2,V3,V4,V5,V6,V7, V9,V10, V11, V12, V13, V14,V15, V16, V17, V20,V21, V23,V24,V25, V26, V29, V30,V32,V33, V34,V35,V37,V38,V39,V40,V42	33	78,6%
	Male	V8, V18,V19,V22,V27,V28,V31,V36 ,V41	9	21,4%
Year	2021	V3, V13,V24,V27	4	9,5%
	2022	V1,V4,V5,V6,V7,V8,V10,V12,V14,V15,V16,V17,V18,V19,V20,V21,V22,V23,V26,V 29,V30,V31, V32,V34,V37,V38	26	61,9%
	2023	V2,V9,V11,V25,V28,V33,V35,V36,V39, V40, V41, V42	12	28,6%
Bedroom Type	Traditional	V4,V6,V7,V8,V9,V10,V12,V13,V15,V16,V18,V22, V23,V25,V27,V28,V30,V32,V35,V36,V37,V38, V39,V40,V41,V42	26	61,9%
	Suit	V1,V3,V5,V11,V14,V17,V19,V20,V21, V29,V31	11	26,2%
	Apartment	V2,V24,V26,V33,V34	5	11,9%

Auditory data were transcribed to conduct the content analysis. The transcripts were read carefully to capture positive, neutral, and negative comments on the objective and subjective dimensions of space (Table 2). Feedback was considered positive when the students described a component that they liked or utilized effectively. While creating these codes, the use of positive emotional expressions was emphasized. Neutral statements included recommendations or situations in which users tolerated issues themselves. Negative feedback was taken from expressions describing situations in which the students were dissatisfied or when they considered something a disadvantage or unsafe. The feedback was classified into objective and subjective dimensions. The text was then examined in more detail to find the emerging codes depending on the interior attributes.



Table 2. Interior attributes categorized by analyzing transcript.

Type	Dimension	User video	Total (n=42)	Codes	Feedback on	
Positive	Objective	V12, V13, V14, V17, V23, V27, V31, V32, V34, V36, V39	26.2%	11	Study activity	Open shelf system; size of desk; efficient lighting; distance between roommates study area
		V8, V12, V13, V14, V17, V19, V20, V27, V29, V31, V37, V39, V41	31.0%	13	Storage	Under-bed storage; open shelf system; space in wardrobe for adaptation with organizers
		V1, V4, V8, V11, V14, V17, V18, V19, V20, V25, V27, V39	26.2%	11	Lighting	Natural light source; existence of individual artificial light source
		V1, V7, V20, V33	9.5%	4	Hygiene activity	Shower and WC in different rooms; hygiene area in bedroom
		V8, V11, V21	7.1%	3	Location of bedroom	Having an elevator for a high-rise building; distance to common areas
	Subjective	V7, V19, V26, V39, V40	11.9%	5	Furniture, fixtures, and equipment	Outlet near the bed; enough outlets for each student in the bedroom; mirror
		V12, V20, V29, V39	9.5%	4	Room density	Size of circulation area for each occupant; size of the room; number of occupants in the room
		V15, V16	4.8%	2	Environmental comfort	Heating; curtains for lighting control
		V7, V17, V29, V31	9.5%	4	Homemaking	Permission to use student's individual bedding sheets; individual artificial light source; pinboard to be used for individualization
		V2, V11, V21, V39	9.5%	4	Social relations	Personal area; defined territory
Neutral	Subjective	V3, V8, V14, V15, V17, V24, V25, V26, V39, V33	23.8%	10	Existing scenery	Aesthetic; attachment; isolation
		V32, V35	4.8%	2	Study activity	Sense of home; size of desk; existence of common study area
		V1, V2, V4, V11, V17, V19, V22, V26, V28, V30, V36	26.2%	11	Furniture, fixtures, and equipment	Accessibility of high shelves; size of area for hygiene; size of shower; need for triple-plug extender
		V2, V6, V10, V11, V26, V36, V38, V42	19.0%	8	Storage	Limited storage capacity; no refrigerator; more non-used space; hangers in wardrobe; no mirror
		V23, V29, V39	7.1%	3	Material	New; old-fashioned flooring
		V19, V26, V31	7.1%	3	Environmental comfort	Humidity; heating
		V7, V22, V29, V35	9.5%	4	Sense of security	Locks for cabinets
		V20, V21	4.8%	2	Existing scenery	Aesthetic
		V8, V35, V37, V12	9.5%	4	Study activity	Size of study desk
		V7, V11, V16	7.1%	3	Lighting	Lack of natural light; quality of light source; individual artificial light source
Negative	Objective	V20, V29, V31, V37	7.1%	3	Environmental comfort	Heating; noisy roommate; humidity
		V15, V31, V37	7.1%	3	Location of room	Not having an elevator; distance to common spaces in building
		V6, V7, V14, V16, V17, V37, V39, V21, V25, V27, V29, V32, V37, V42	33.3%	14	Furniture, fixtures, and equipment	Bunk bed system; safety of compact upper bed + desk; accessibility of shelves and window handle; insufficient outlets; room phone that occupies space; cooling problems with fridge; noisy fixtures; capacity of refrigerator; location of switch on opposite side
		V7, V8, V37	7.1%	3	Room density	Number of occupants; small size; size of circulation area for each occupant
		V9, V11, V42, V29	9.5%	4	Homemaking	Adaptability of surfaces; lack of aesthetic
	Subjective	V12, V22	4.8%	2	Social relations	Personal area; privacy



The visual materials were analyzed by observing the physical traces that were supported with verbal information in terms of improved experiences by the user (Table 3). The visual data from videos, where users did not fully occupy or display the space, did not adequately reflect the improved experience. The interventions made by students to improve their experiences were grouped under codes. In addition to the codes generated from the transcripts, new codes were also generated. These codes were also classified under objective and subjective dimensions and analyzed by verbal information to determine to which codes they were related.

Table 3. Improved user experience.

Dimension	User video	Total (n=42)		Codes	Improved experience
Objective	V5,V7,V8,V9,V10,V11,V12, V15,V16,V17,V18,V19, V20,V22, V25, V29,V30,V32,V33, V34,V35,V36, V38	23	54,8%	Storage	Using organizers in wardrobe; Hooks on cabinet surfaces; Hooks behind door; Extending the shoe shelves; Laundry basket; Using the spaces between furniture
	V4,V14, V17,V18, V19, V28, V32, V37, V22, V42	10	23,8%	Furniture, fixtures, and equipment	Use of triple plug extender; window swatter; desk-lamp; ergonomics of chair; mirror
	V2,V6,V7,V9,V10,V16,V17, V19, V30,V31,V32, V36	12	28,6%	Kitchen activity	Use surface as counter on cabinets; Store food; Dining on study desk; Keeping kitchenware products
Subjective	V11,V15,V17,V18,V24,V29, V32, V34	8	19,0%	Home-making	Decorative elements on walls or shelves; Carpet; Personalized territories by using family photos
	V14, V18, V33	3	7,1%	Social relations	Using windowsill as sitting place to watch outside; Rearranging boundaries by changing place of furniture
	V7,V22, V29	3	7,1%	Sense of security	Use lockers for cabinets

RESULTS AND DISCUSSION

The content was posted from the three metropolitan cities with the highest number of university students in Turkey. The intention of female students to create content was higher than that of male students. Most of the content was posted in 2022. This result might be an effect of online culture due to the impact of the pandemic. Traditional forms of primary territories were the common type of bedroom among the video content, regardless of the number of occupants sharing the room. No visual information was observable regarding the activities promoted for the in-use version, as some videos were taken in empty rooms. Apartment and suite-type rooms had less negative feedback on the analyzed videos.

The codes were generated as interior attributes of student housing based on user activity or elements of the interior in the videos (Figure 2). User activities were generated by the analysis as study activity, hygiene activity, kitchen activity, and homemaking activity. Element-based attributes included storage, furniture, fixtures and equipment, material, environmental comfort, lighting, location of the bedroom, and room density as the objective dimensions. The existence of a view, a sense of security, and social relations were element-based attributes as the subjective dimensions. The physical conditions for activities were mostly reflected in feedback about primary territories in the videos. No feedback was given regarding interactions with other students living in the building.



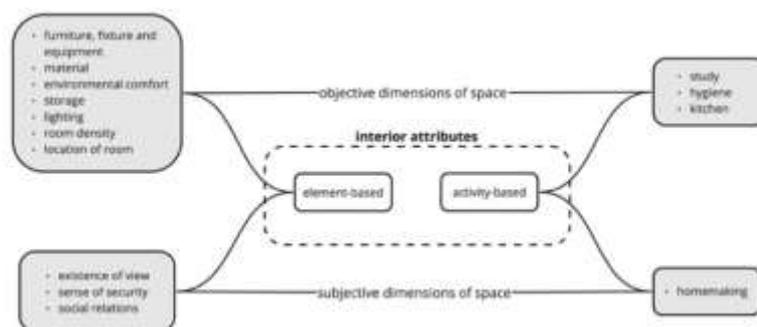


Figure 2. Interior attributes gathered from user-generated content.

Prior elements for fulfilling students' housing experiences (RQ1)

Prior elements for fulfilling student's experiences in primary territories were categorized under the objective and subjective dimensions of space. The objective dimension included physical variables in primary territories. The data gathered from transcripts demonstrated that users placed importance on the activity itself in addition to the physical qualities. The users' comments included element- and activity-based information. Study and hygiene were the most frequently mentioned user activities.

The transcripts mostly included feedback about sustaining a study activity, which requires thought when designing physical entities in student housing. The positive features from user feedback for the study activity included an open shelf system above or near a desk, the size of the desk, lighting, and the distance between the roommates' desks. The size of the desk was a repeated criterion (both negative and positive) in descriptions of the study environment.

Hygiene was another accommodating activity regarding bedroom type. Videos mostly included the traditional form of primary territories, as hygiene spaces have become common-use areas for floors. For this reason, hygiene was not a popular topic in the content. However, for suites and apartments, having a shower and WC in separate rooms and their size in terms of students' expectations should be considered in designs. Kitchens and cooking activities were only mentioned for apartments. Even though students attempted to show that they had utensils in their rooms, there were no related comments.

Storage in primary territories was the most mentioned determinant of interior elements. In cases of an apartment-style layout, insufficient storage space was not mentioned. This situation was mostly seen in multiple occupancy rooms. No negative expressions were captured in the findings; however, storage had neutral feedback, with users being aware of limited resources. In addition, when students have wet clothes and bedding to dry, they must use hygiene areas that are at the floor level. Some users solved this issue by storing their personal items in their rooms in various ways, such as hanging wet items on a corner of a wardrobe door.

Furniture, fixtures, and equipment were other determinants, according to the amount of relevant content found. A refrigerator is necessary for food storage in bedrooms and in common areas of the building. However, this item is manufactured with a standardized capacity. Therefore, it has varying efficiencies according to user density. The number of occupants should be considered in terms of providing sufficient capacity. The ergonomic placement of electricity outlets is one of the significant elements in the room due to the high use of electronic equipment in students' daily life.

Environmental comfort was also a concern for the students. The quality of heating and curtains for blocking light can be controlled by users, which they appreciated, but damp walls and problems with heating were noted as issues. Noisy roommates were noted as a problem with sharing a bedroom. Lighting was coded separately as an interior attribute. Students made positive comments when rooms had good natural light and individual artificial light sources.

There was also feedback on space planning. Room density was mentioned, with criticisms of the size of the circulation area for each occupant, the size of the room, and the number of students in the room.

Room location was criticized in terms of accessibility by not having elevators in high-rise buildings and long distance to the common areas.

The subjective dimensions were captured in videos about creating an identity in the room and defining personal areas. Interventions were done to support “feeling at home,” according to the transcripts. Scenery was captured as an attractive component for students to use to isolate themselves in their rooms. It also affected the amount and way of spending time in primary territories.

Students assessed these attributes in primary territories as influential for potential users. Focusing on these attributes during the design process can support a more user-centered approach. These qualities, highlighted in the study's findings through feedback on each code, hold an important position and consideration in the design process. Architects, interior designers, and other stakeholders could examine these aspects specifically tailored to student profiles. Additionally, they could revisit these attributes for application in different types of primary territories.

Experiences improved by user (RQ2)

Students developed their own solutions to improve their living experiences during their university stays. According to the analysis of the visual material on storage, the students mostly attempted to improve it. The analysis demonstrated that users found alternate solutions themselves and mostly attempted to increase functionality in their rooms.

Storage was a basic and obvious element improved by users. They utilized organizers in their wardrobes, hangers in cabinets and on doors, and extended the function of furniture by using the gap between pieces of furniture for storage. In traditional dorms, where wet areas are shared, students cannot leave their wet items in shared common areas to dry. Therefore, the students created their own solutions, such as using hooks or hangers on cabinet surfaces or behind doors and stretching ropes around bunk beds. Another storage intervention was adding shelves for their shoes to provide more areas for organization and storage. In rooms where movable furniture was preferred, the spaces between the furniture were used as storage areas.

As common spaces are separate from rooms, many students created mini kitchens in their bedrooms. Kitchenware and food products were stored in clothing cabinets. Therefore, activities intersected with students studying and eating meals in their bedrooms.

The analysis of the visual data demonstrated efforts of students to create boundaries for fair use and equal storage space on surfaces. In some examples, windowsills with sufficient depth are converted by students as an alternative space for isolation. In some facilities, the furniture had locks. Students living in shared rooms mentioned concerns about the security of their belongings, which prompted them to buy locks or lockers.

Finally, the type of primary territory utilized also impacted the user experience. For example, having more than two occupants in one room makes it difficult to create a homelike environment. Shared rooms with four students had more negative feedback about the objective and subjective dimensions of space, and those in this room type had greater difficulty managing their personal areas.

The experiences improved by users demonstrated the solutions they find in the space to meet their own needs. These solutions could reflect spatial and functional necessities to be considered in pre-design phase. By considering these solutions, designers could further develop new design ideas for primary territories with a user-centered approach.

CONCLUSION

In this study, user experience in the primary territories of student housing was analyzed through UGC regarding the objective and subjective dimensions of space. UGC from users of student housing was gathered from YouTube. To employ YouTube as open data source introduced some limitations in the research. First, results are limited to generalize among all university students in Turkey. The study



includes selection bias in sampling, as YouTube search results may vary at different time intervals. Secondly, the samples are not balanced, which means that the context of the results cannot be examined between groups. In addition, financial factors affecting situations related to on-campus student housing were not considered within the scope of this study.

Despite some limitations, the present study has contribution which bridges the gap in both the empirical and methodological aspects of the interior design literature. It contributes to the empirical aspect in that user experience is analyzed by UGC, including users' demand-based evaluations of two dimensions of space. The students shared content wherein they explained the topics they prioritized in their experiences. Additionally, the results and interventions for improving the quality of users' experiences should be considered outputs to ensure the durability and long-term use of furniture and architectural elements in the interior.

This study also makes a methodological contribution to the literature. UGC is usually used in exploratory studies on product development. Since the participants produced the content in their natural environment with their own motivation, the spatial experiences in the study constituted a data field from the trend of conveying experiences visually and verbally. This study utilized a natural observation area in which researchers could analyze users' experiences.

Finally, this study revealed interior attributes that are at the forefront of determining user expectations. The fact that this study did not contain results regarding other physical elements in student housing does not reduce the importance of questioning the quality of other entities in student housing. UGC is considered that it includes critical experiences about which other users are curious. In future research, these results could be further investigated by developing instruments to measure users' experiences in student housing from user-centered and participatory perspective. Additionally, further studies are recommended to examine these experiences along with the dormitories' spatial organization by addressing the design of the typology of buildings.

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