

Might the Bonanza Box Be a New Tool to Reduce Smartphone Time?

Könnte die Bonanza-Box ein neues Tool zur Reduzierung der Smartphone-Zeit sein?

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Today, almost half of the world's population is using a smartphone, and, with the development of emerging markets, this number will continue to grow (Statista, 2020). The average time people spend on their mobile phones amounted to 122 minutes per day in 2018 and 155 minutes per day by 2021 (Statista, 2021). Many positive effects, such as facilitated information-seeking and enhancement of productivity, can be seen in connection with the rise of the smartphone age (Elhai, Dvorak, Levine & Hall, 2017). Nevertheless, the increasing use of smartphones has also led to a decrease in the well-being of its users. There is a tendency for users, especially young adults, to become addicted to their smartphones (Haug, Castro, Kwon, Filler, Kowatsch & Schaub, 2015). This tendency has been examined in previous studies, which show that the appearance of problematic smartphone use among adolescents ranges from 10% in the United Kingdom (Lopez-Fernandez, Honrubia-Serrano, Freixa-Blanxart & Gibson, 2014) to 31% in India (Nikhita, Jadhav & Ajinkya, 2015). Furthermore, university students have shown problematic smartphone use; e.g., almost half of the medical students in a recent study were addicted to their smartphones (Dharmadhikari, Harshe & Bhide, 2019).

Since more and more people are becoming addicted to smartphones, there has been an increase in research about the negative effects of this addiction. Numerous studies found that the overuse of smartphone affects one's quality of sleep (Kumar, Chandrasekaran & Brahadeeswari, 2019), mental health (Alhassan, Alqadhib, Taha, Alahmari, Salam & Almutairi, 2018), and musculoskeletal system (Eitivipart, Viriyarajanakul & Redhead, 2017). The consequences of the growing prevalence of addictive behavior related to smartphones are alarming. To prevent this addiction from becoming a serious health problem, measures to reduce the smartphone time should be implemented.

Research on this field, however, is relatively scarce: e.g., applications that generate pop-up notifications about the user's smartphone use (Loid, Täht & Rozgonjuk, 2020). Contrary to expectations, these applications did not help smartphone users reduce their smartphone time (Loid, Täht & Rozgonjuk, 2020). In recent years, the topic of smartphone addiction and its consequences has gained increasing attention. Hence, researchers have been interested in investigating various methods to reduce smartphone screen time, such as using different apps that provide notifications about screen usage (Loid, Täht & Rozgonjuk, 2020) or adjusting the grayscale settings (Holte & Ferraro, 2020; Holte, Giesen & Ferraro, 2023; Wickord & Quaiser-Pohl, 2023). To contribute to this emerging field of study, we investigated the Bonanza Box as a new method to reduce screen time. The ethics committee of the Medical University of Vienna approved this study (approval number: 2243/2020).

For this purpose, the Bonanza Box was developed based on the experience that people usually have a place where they put their keys while they are at home. The term Bonanza is derived from English and means "rich gold mine" or "stroke of luck" (loanword from Spanish bonanza "calm of the sea, calm of the wind; prosperity, upswing; rich vein of ore"). The idea is that while being at home, people put their smartphone in the Bonanza Box which is placed at a favorite place at home. Users are supposed to put their phones into the Bonanza Box in order to reduce the temptation of checking their phones when at home. Users are asked to put their smartphone in the Bonanza Box as often as possible to prevent them from using their phones. Adherence to this rule is based on the participants' free will and motivation, and as such, there is no guarantee that the users will keep with this rule. The Bonanza Box is a simple box consisting of cardboard available in different colors. It has an opening where