Validated Questionnaires in Flow Theory

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Contributor: David Antonio Rosas , Natalia Padilla-Zea , Daniel Burgos

Psychological flow has been measured in several areas to analyse to what extent users are engaged in particular tasks, and is relevant in the design of products like software, videogames, and eLearning courses.

flow optimal experience validated questionnaires

1. The Flow Theory

Flow Theory [1] is framed within Positive Psychology because it is related to the improvement and knowledge of human capacities [2][3]. It should also be noted that Csikszentmihalyi [4] frames it within the theories of self, since it focuses on what people feel about themselves [5][6][7][8]. Likewise, interest in human enjoyment distances Flow Theory from paradigms such as Behaviourism or Psychoanalytic Theory, which explain participation in experiences as being in order to obtain rewards or meet libido needs [1][9]. Conversely, Flow Theory explains the causes that lead people to participate in activities that do not bring them immediate or tangible benefit [1]. Csikszentmihalyi [1] and Privette [10], among others, justified such behaviour because individuals live peak experiences [11] with a perceived optimum between fun and the perfection achieved. In this sense, Flow Theory explains persistence in non-trivial activities [12]. Moreover, they must be carried out smoothly, without apparent effort [13]. That is why they are called optimal experiences, and that particular psychological state is known as flow [14][15]. In summary, participating in activities perceived as optimal experiences reinforces motivation [16]. Moreover, since people seek to participate in activities they enjoy, Flow Theory has a hedonistic nature [17].

2. Justification and General Description of Psychological Flow

The term flow is defined as “the holistic sensation that people feel when they act with total engagement” [1] (p. 36) while they participate in any activity. Additionally, there are other definitions that stress flow preconditions, the core flow experience, or the consequences of such a psychological state [14]. However, the most prominent definition is the one proposed by Csikszentmihalyi [1], which considers that the flow state is a subjective situation, since it depends on how the person perceives his or her participation in the task. In order to achieve flow, the subjective balance between perceived challenges and skills related to the task (experience) is an important element [18], since the flow only starts when such perceptions are over a certain limit and in balance [15]. In addition, immediate feedback and clear goals are the other necessary preconditions to achieve flow [1][19].

Other definitions associate flow with fun [10][20], which summarizes the core of the experience. According to [21], when people are in flow, they report feelings of happiness, motivation, and cognitive efficiency. However, for Ghani [22], the two key features of the core experience are concentration and enjoyment during the activity. Even simple approaches such as these provide one of the main justifications for the existence of Flow Theory: it studies what makes experiences fun for people to take part in, even when they do not receive immediate benefits [1]. Moreover, Kotler et al. [23] consider flow to be an altered state of consciousness, because people feel a distortion of the sense of time, and also a lack of self-consciousness, similar to addictions, as demonstrated with neurophysiological experiments. Furthermore, participants have described the sensation of being in flow as an effortless effort, in which actions move fluidly to the next [14]. In addition, some consequences are derived from such pleasurable state [14] because individuals want to participate in experiences again and increase their performance [1][19][24][25]. However, there are other voices who consider flow to be a process [26], rather than a state [25]. Thus, any static or linear definition may not be precise.

On the other hand, Novak and Hoffman [27] established general methods in flow research, in which questionnaires and scales are paramount. Thus, experimental works may start with the participation in or the recall of a particular experience, before completing some questionnaires or interviews at the end of the session [27]. Moreover, any experimental work on Flow Theory involving questionnaires will also include physiological measures in its methodology [28][29].

However, several authors [30][31][32] have reported that there is no agreement on the number of available questionnaires, as well as the dimensions of flow that the instruments can assess [21][22][33][34][35]. Since there is also no agreement on the relative importance of such dimensions [30], it is not clear whether definitions miss information, or the phenomenology of the flow state differs with the activity [23][36]. In fact, other authors have delved into the inconsistencies in the definition of the flow concept and report methodological issues in the development of the flow-related scales [37]. Another remarkable feature of these questionnaires is that, even when flow state phenomenology is similar among cultures [17], most of them only include positive aspects of the experience, forgetting to assess negative aspects and sweetening the recall of experiences [38][39]. Taking all these elements into consideration, several authors [26] claim that flow research is approaching a “crisis point” or a paradigm shift, due to accumulating methodological and conceptual inconsistencies.

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