

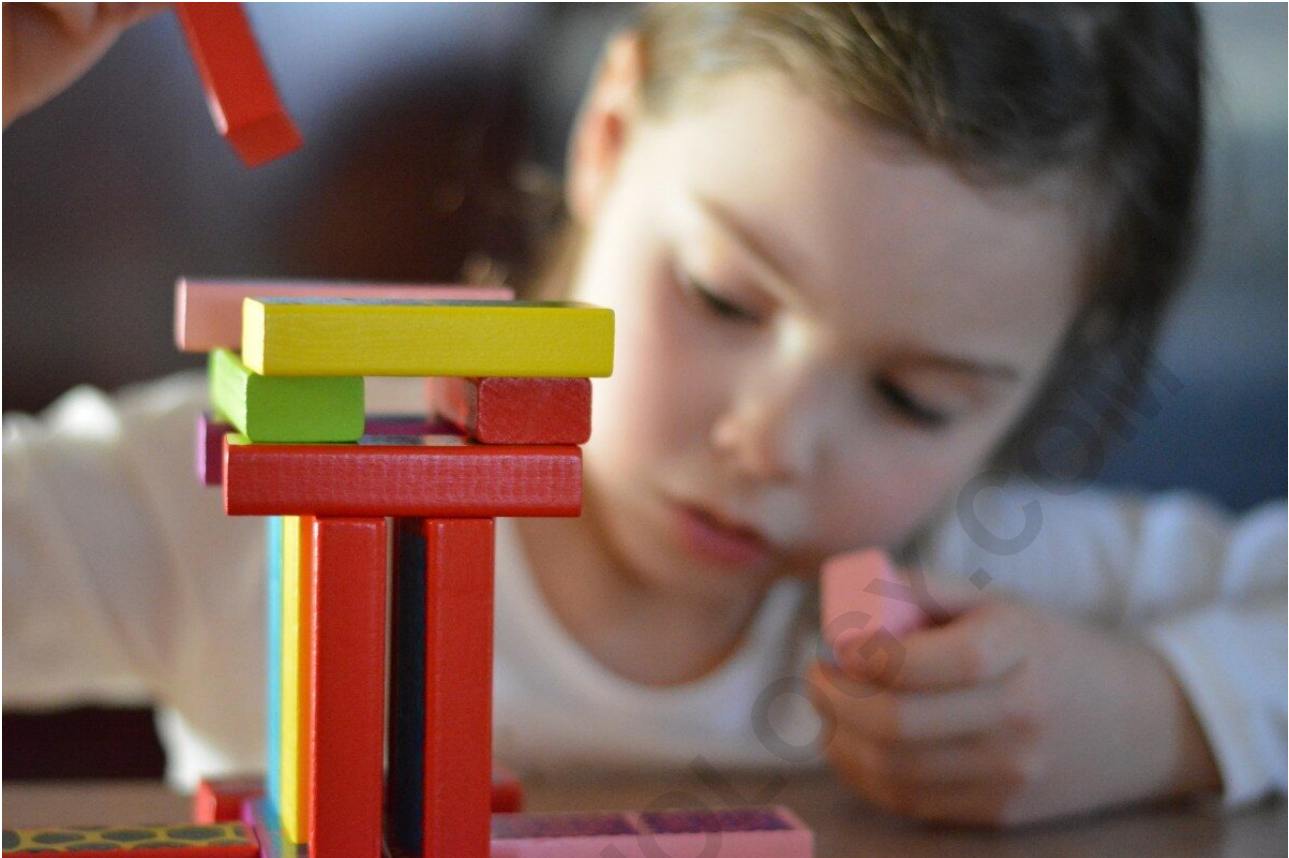
Flow: Master the Art of Total Immersion

Authored by
mohammad looti

June 16, 2026

RECOMMENDED CITATION

mohammad looti (2026). *Flow: Master the Art of Total Immersion*. PSYCHOLOGICAL SCALES. Retrieved from <https://scales.arabpsychology.com/?p=38064>



Concentrating on a task is one aspect of flow.

In positive psychology, flow, also known as the zone, is the mental state of operation in which a person performing an activity is fully immersed in a feeling of energized focus, full involvement, and enjoyment in the process of the activity. In essence, flow is characterized by complete absorption in what one does, and a resulting loss in one's sense of space and time.

Named by Mihály Csíkszentmihályi, the concept has been widely referenced across a variety of fields (and has an especially big recognition in occupational therapy), though the concept has existed for thousands of years under other guises, notably in some Eastern religions. Achieving flow is often colloquially referred to as being in the zone.

Flow shares many characteristics with hyperfocus. However, hyperfocus is not always described in a positive light. Some examples include spending "too much" time playing video games or getting side-tracked and pleurably absorbed by one aspect of an assignment or task to the detriment of the overall assignment. In some cases, hyperfocus can "capture" a person, perhaps causing them to appear unfocused or to start several projects, but complete few.

Components

Jeanne Nakamura and Csíkszentmihályi identify the following six factors as encompassing an experience of flow:

Intense and focused concentration on the present moment

Merging of action and awareness

A loss of reflective self-consciousness

A sense of personal control or agency over the situation or activity

A distortion of temporal experience, one's subjective experience of time is altered

Experience of the activity as intrinsically rewarding, also referred to as autotelic experience

Those aspects can appear independently of each other, but only in combination do they constitute a so-called flow experience. Additionally, psychology writer Kendra Cherry has mentioned three other components that Csíkszentmihályi lists as being a part of the flow experience:

"Immediate feedback"

Feeling that you have the potential to succeed

Feeling so engrossed in the experience, that other needs become negligible

Just as with the conditions listed above, these conditions can be independent of one another.

Etymology

Flow is so named because during Csíkszentmihályi's 1975 interviews several people described their "flow" experiences using the metaphor of a water current carrying them along.

History

Mihaly Csikszentmihályi and his fellow researchers began researching flow after Csikszentmihályi became fascinated by artists who would essentially get lost in their work. Artists, especially painters, got so immersed in their work that they would disregard their need for food, water and even sleep. Thus, the origin of research on the theory of flow came about when Csikszentmihályi tried to understand this phenomenon experienced by these artists. Flow research became prevalent in the 1980s and 1990s, with Csikszentmihályi and his colleagues in Italy still at the forefront. Researchers interested in optimal experiences and emphasizing positive experiences, especially in places such as schools and the business world, also began studying the theory of flow at this time. The theory of flow was greatly used in the theories of Abraham Maslow and Carl Rogers in their development of the humanistic tradition of psychology.

Flow has been recognized throughout history and across cultures. The teachings of Buddhism and of Taoism speak of a state of mind known as the "action of inaction" or "doing without doing" (wu wei in Taoism) that greatly resembles the idea of flow. Also, Hindu texts on Advaita philosophy

such as Ashtavakra Gita and the Yoga of Knowledge such as Bhagavad-Gita refer to a similar state.

Mechanism

In every given moment, there is a great deal of information made available to each individual. Psychologists have found that one's mind can attend to only a certain amount of information at a time. According to Csikszentmihályi's 2004 TED talk, that number is about "110 bits of information per second". That may seem like a lot of information, but simple daily tasks take quite a lot of information. Just decoding speech takes about 60 bits of information per second. That is why when having a conversation one cannot focus as much attention on other things.

For the most part (except for basic bodily feelings like hunger and pain, which are innate), people are able to decide what they want to focus their attention on. However, when one is in the flow state, they are completely engrossed with the one task at hand and, without making the conscious decision to do so, lose awareness of all other things: time, people, distractions, and even basic bodily needs. This occurs because all of the attention of the person in the flow state is on the task at hand; there is no more attention to be allocated.

The flow state has been described by Csikszentmihályi as the "optimal experience" in that one gets to a level of high gratification from the experience. Achieving this experience is considered to be personal and "depends on the ability" of the individual. One's capacity and desire to overcome challenges in order to achieve their ultimate goals not only leads to the optimal experience, but also to a sense of life satisfaction overall.

Measurement

There are three common ways to measure flow experiences: the flow questionnaire (FQ), the experience sampling method (ESM), and the "standardized scales of the componential approach".

Flow Questionnaire

The FQ requires individuals to identify definitions of flow and situations in which they believe that they have experienced flow, followed by a section that asks them to evaluate their personal experiences in these flow-inducing situations. The FQ identifies flow as a single construct, therefore allowing the results to be used to estimate differences in the likelihood of experiencing flow across a variety of factors. Another strength of the FQ is that it does not assume that everyone's flow experiences are the same. Because of this, the FQ is the ideal measure for estimating the prevalence of flow. However, the FQ has some weaknesses that more recent methods have set out to address. The FQ does not allow for measurement of the intensity of flow

during specific activities. This method also does not measure the influence of the ratio of challenge to skill on the flow state.

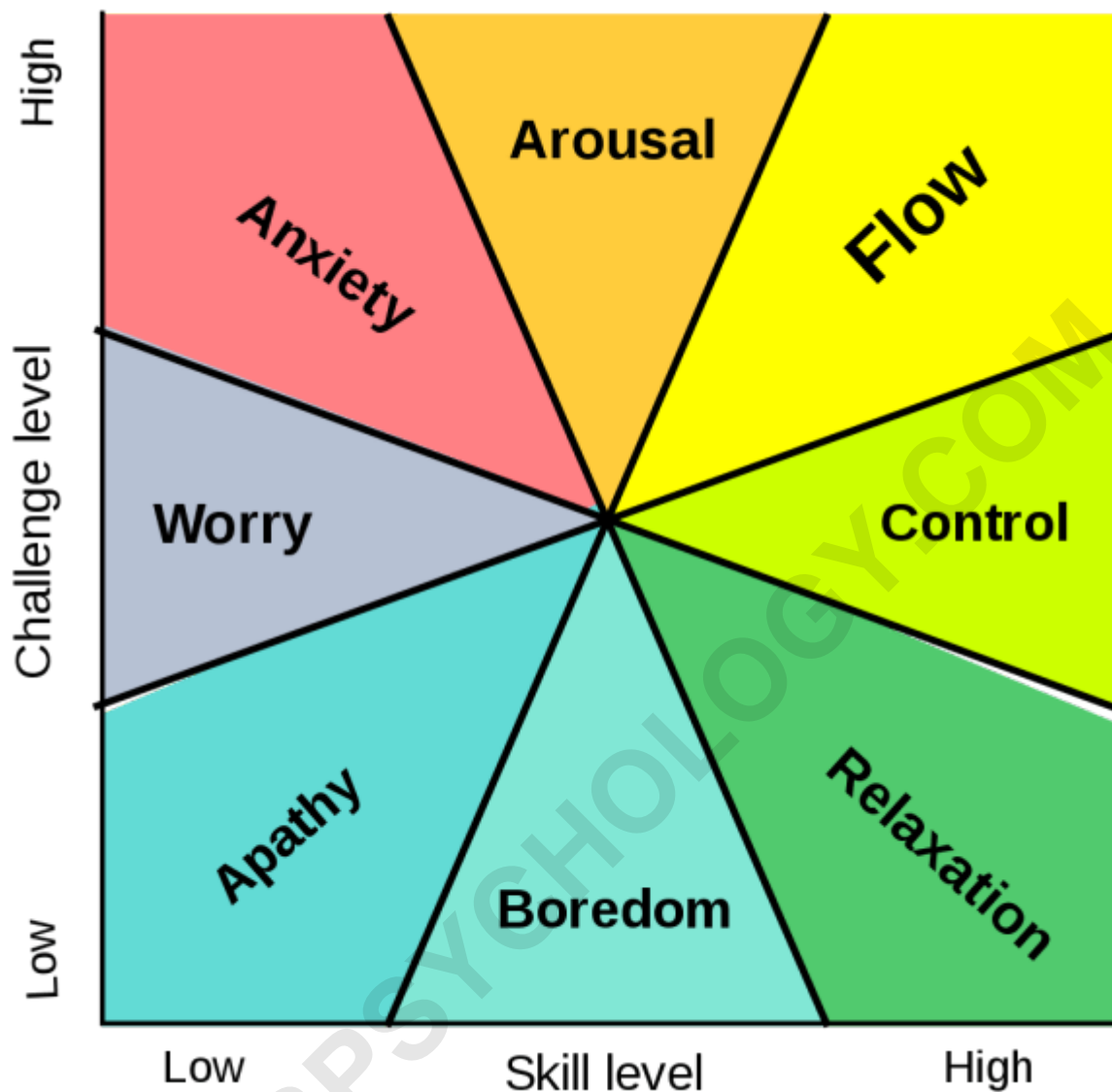
Experience Sampling Method

The ESM requires individuals to fill out the experience sampling form (ESF) at eight randomly chosen time intervals throughout the day. The purpose of this is to understand subjective experiences by estimating the time intervals that individuals spend in specific states during everyday life. The ESF is made up of 13 categorical items and 29 scaled items. The purpose of the categorical items is to determine the context and motivational aspects of the current actions (these items include: time, location, companionship/desire for companionship, activity being performed, reason for performing activity). Because these questions are open-ended, the answers need to be coded by researchers. This needs to be done carefully so as to avoid any biases in the statistical analysis. The scaled items are intended to measure the levels of a variety of subjective feelings that the individual may be experiencing. The ESM is more complex than the FQ and contributes to the understanding of how flow plays out in a variety of situations, however the possible biases make it a risky choice.

Standardized Scales

Some researchers are not satisfied with the methods mentioned above and have set out to create their own scales. The scales developed by Jackson and Eklund are the most commonly used in research, mainly because they are still consistent with Csíkszentmihályi's definition of flow and consider flow as being both a state and a trait. Jackson and Eklund created two scales that have been proven to be psychometrically valid and reliable: the Flow State Scale-2 (which measures flow as a state) and the Dispositional Flow Scale-2 (designed to measure flow as either a general trait or domain-specific trait). The statistical analysis of the individual results from these scales gives a much more complete understanding of flow than the ESM and the FQ.

Conditions



Mental state in terms of challenge level and skill level, according to Csikszentmihalyi's flow model. (Click on a fragment of the image to go to the appropriate article)

A flow state can be entered while performing any activity, although it is most likely to occur when one is wholeheartedly performing a task or activity for intrinsic purposes. Passive activities like taking a bath or even watching TV usually do not elicit flow experiences as individuals have to actively do something to enter a flow state. While the activities that induce flow may vary and be multifaceted, Csikszentmihályi asserts that the experience of flow is similar despite the activity.

Flow theory postulates three conditions that have to be met to achieve a flow state:

One must be involved in an activity with a clear set of goals and progress. This adds direction and structure to the task.

The task at hand must have clear and immediate feedback. This helps the person negotiate any changing demands and allows them to adjust their performance to maintain the flow state.

One must have a good balance between the perceived challenges of the task at hand and their own perceived skills. One must have confidence in one's ability to complete the task at hand.

However, it was argued that the antecedent factors of flow are interrelated, as a perceived balance between challenges and skills requires that one knows what he or she has to do (clear goals) and how successful he or she is in doing it (immediate feedback). Thus, a perceived fit of skills and task demands can be identified as the central precondition of flow experiences.

In 1987, Massimini, Csíkszentmihályi and Carli published the 8-channel model of flow shown here. Antonella Delle Fave, who worked with Fausto Massimini at the University of Milan, now calls this graph the Experience Fluctuation Model. The Experience Fluctuation Model depicts the channels of experience that result from different levels of perceived challenges and perceived skills. This graph illustrates one further aspect of flow: it is more likely to occur when the activity at hand is a higher-than-average challenge (above the center point) and the individual has above-average skills (to the right of the center point). The center of this graph (where the sectors meet) represents one's average levels of challenge and skill across all activities an individual performs during their daily life. The further from the center an experience is, the greater the intensity of that state of being (whether it is flow or anxiety or boredom or relaxation).

Several problems of this model have been discussed in literature. One is that it does not ensure a perceived balance between challenges and skills which is supposed to be the central precondition of flow experiences. Individuals with a low average level of skills and a high average level of challenges (or the other way round) do not necessarily experience a fit between skills and challenges when both are above their individual average. In addition, one study found that low challenge situations which were surpassed by skill were associated with enjoyment, relaxation, and happiness, which, they claim, is contrary to flow theory.

Schaffer (2013) proposed 7 flow conditions:

Knowing what to do

Knowing how to do it

Knowing how well you are doing

Knowing where to go (if navigation is involved)

High perceived challenges

High perceived skills

Freedom from distractions

Schaffer also published a measure, the Flow Condition Questionnaire (FCQ), to measure each of these 7 flow conditions for any given task or activity.

Challenges to Staying

Some of the challenges to staying in flow include states of apathy, boredom, and anxiety. Being in a state of apathy is characterized when challenges are low and one's skill level is low producing a general lack of interest in the task at hand. Boredom is a slightly different state in that it occurs when challenges are low, but one's skill level exceeds those challenges causing one to seek higher challenges. Lastly, a state of anxiety occurs when challenges are so high that they exceed one's perceived skill level causing one great distress and uneasiness. These states in general differ from being in a state of flow, in that flow occurs when challenges match one's skill level. Consequently, Csíkszentmihályi has said, "If challenges are too low, one gets back to flow by increasing them. If challenges are too great, one can return to the flow state by learning new skills."

The Autotelic Personality

Csíkszentmihályi hypothesized that people with several very specific personality traits may be better able to achieve flow more often than the average person. These personality traits include curiosity, persistence, low self-centeredness, and a high rate of performing activities for intrinsic reasons only. People with most of these personality traits are said to have an autotelic personality. The term "autotelic" is acquired from two Greek words, auto, meaning self, and telos meaning goal. Being Autotelic means having a self-contained activity, one that is done not with the expectation of some future benefit, but simply to experience it as the main goal.

At this point, there is not much research on the autotelic personality, but results of the few studies that have been conducted suggest that indeed some people are more prone to experience flow than others. One researcher (Abuhamdeh, 2000) found that people with an autotelic personality have a greater preference for "high-action-opportunity, high-skills situations that stimulate them and encourage growth" compared to those without an autotelic personality. It is in such high-challenge, high-skills situations that people are most likely to enter the flow state.

Experimental evidence shows that a balance between skills of the individual and demands of the task (compared to boredom and overload) only elicits flow experiences in individuals characterized by an internal locus of control or a habitual action orientation. Several correlational studies found need for achievement to be a personal characteristic that fosters flow experiences.

Group

Group flow is notably different from independent flow as it is inherently mutual. Group flow is attainable when the performance unit is a group, such as a team or musical group. When groups cooperate to agree on goals and patterns, social flow, commonly known as group cohesion, is

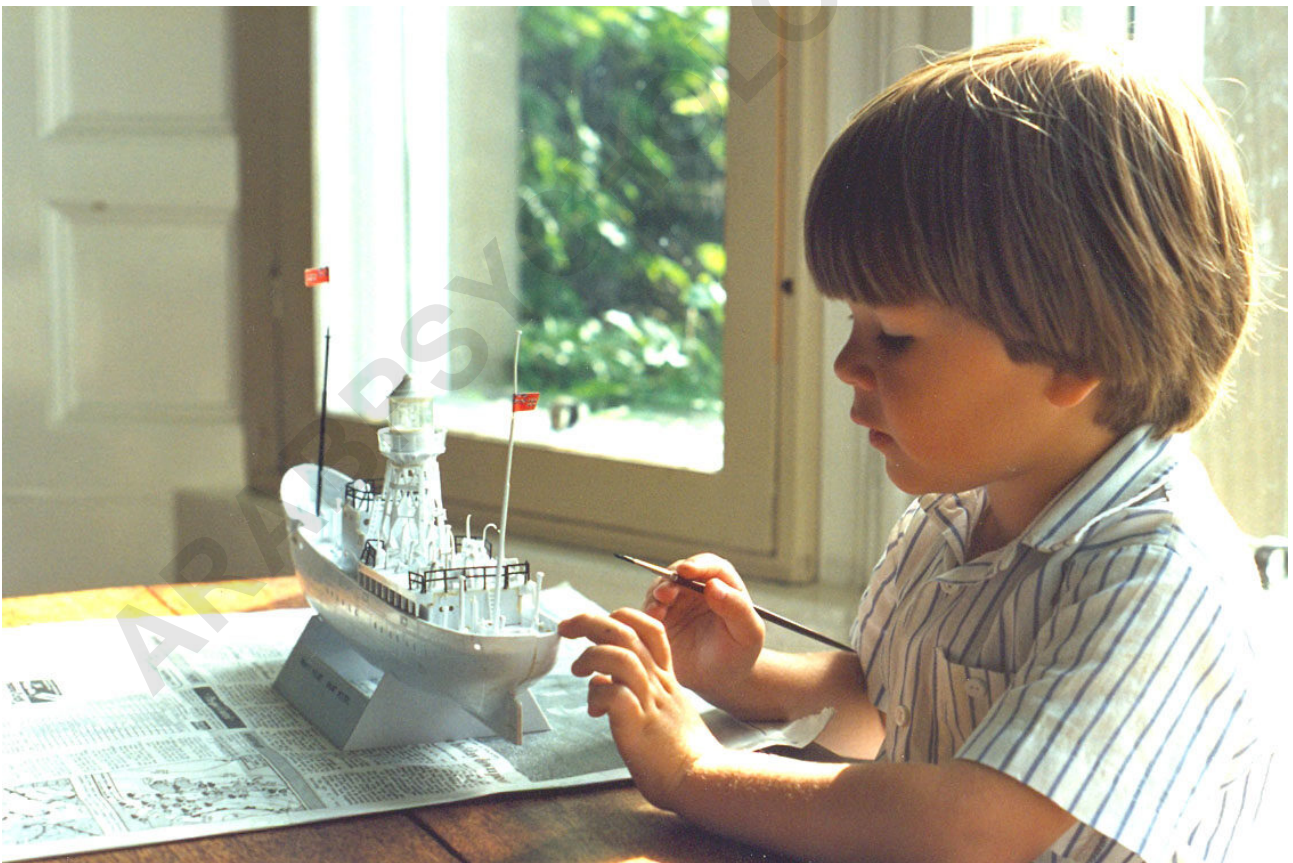
much more likely to occur. If a group still has not entered flow, a team-level challenge may stimulate the group to harmonize.

Applications

Applications suggested by Csíkszentmihályi versus other practitioners

Only Csíkszentmihályi seems to have published suggestions for extrinsic applications of the flow concept, such as design methods for playgrounds to elicit the flow experience. Other practitioners of Csíkszentmihályi's flow concept focus on intrinsic applications, such as spirituality, performance improvement, or self-help. His work has also informed the measurement of donor momentum by The New Science of Philanthropy.

Education



Young child, painting a model

In education, the concept of overlearning plays a role in a student's ability to achieve flow.

Csikszentmihályi states that overlearning enables the mind to concentrate on visualizing the desired performance as a singular, integrated action instead of a set of actions. Challenging assignments that (slightly) stretch one's skills lead to flow.

In the 1950s British cybernetician Gordon Pask designed an adaptive teaching machine called SAKI, an early example of "e-learning". The machine is discussed in some detail in Stafford Beer's book *Cybernetics and Management*. In the patent application for SAKI (1956), Pask's comments (some of which are included below) indicate an awareness of the pedagogical importance of balancing student competence with didactic challenge, which is quite consistent with flow theory:

If the operator is receiving data at too slow a rate, he is likely to become bored and attend to other irrelevant data.

If the data given indicates too precisely what responses the operator is required to make, the skill becomes too easy to perform and the operator again tends to become bored.

If the data given is too complicated or is given at too great a rate, the operator is unable to deal with it. He is then liable to become discouraged and lose interest in performing or learning the skill.

Ideally, for an operator to perform a skill efficiently, the data presented to him should always be of sufficient complexity to maintain his interest and maintain a competitive situation, but not so complex as to discourage the operator. Similarly these conditions should obtain at each stage of a learning process if it is to be efficient. A tutor teaching one pupil seeks to maintain just these conditions.

Around 2000, it came to the attention of Csikszentmihályi that the principles and practices of the Montessori Method of education seemed to purposefully set up continuous flow opportunities and experiences for students. Csikszentmihályi and psychologist Kevin Rathunde embarked on a multi-year study of student experiences in Montessori settings and traditional educational settings. The research supported observations that students achieved flow experiences more frequently in Montessori settings.

Music

Musicians, especially improvisational soloists, may experience a state of flow while playing their instrument. Research has shown that performers in a flow state have a heightened quality of performance as opposed to when they are not in a flow state. In a study performed with professional classical pianists who played piano pieces several times to induce a flow state, a significant relationship was found between the flow state of the pianist and the pianist's heart rate, blood pressure, and major facial muscles. As the pianist entered the flow state, heart rate and blood pressure decreased and the major facial muscles relaxed. This study further emphasized

that flow is a state of effortless attention. In spite of the effortless attention and overall relaxation of the body, the performance of the pianist during the flow state improved.

Groups of drummers experience a state of flow when they sense a collective energy that drives the beat, something they refer to as getting into the groove or entrainment. Likewise drummers and bass guitarists often describe a state of flow when they are feeling the downbeat together as being in the pocket.

Sports

Flow may occur in challenging sports such as eventing.

The concept of being in the zone during an athletic performance fits within Csíkszentmihályi's description of the flow experience, and theories and applications of being in the zone and its relationship with athletic competitive advantage are topics studied in the field of sport psychology.

Timothy Gallwey's influential works on the "inner game" of sports such as golf and tennis described the mental coaching and attitudes required to "get in the zone" and fully internalize mastery of the sport.

Roy Palmer suggests that "being in the zone" may also influence movement patterns as better integration of the conscious and subconscious reflex functions improves coordination. Many athletes describe the effortless nature of their performance while achieving personal bests.

In many martial arts, the term *Budo* is used to describe psychological flow. Mixed martial arts champion and Karate master Lyoto Machida uses meditation techniques before fights to attain *mushin*, a concept that, by his description, is in all respects equal to flow.

The Formula One driver Ayrton Senna, during qualifying for the 1988 Monaco Grand Prix, explained: "I was already on pole, and I just kept going. Suddenly I was nearly two seconds faster than anybody else, including my team mate with the same car. And suddenly I realised that I was no longer driving the car consciously. I was driving it by a kind of instinct, only I was in a different dimension. It was like I was in a tunnel."

Former 500 GP rider Wayne Gardner talking about his victory at the 1990 Australian Grand Prix on *The Unrideables 2* documentary said: "During these last five laps I had this sort of above body experience where actually raised up above and I could see myself racing. It was kind of a remote control and it's the weirdest thing I've ever had in my life. After the race Mick and in fact Wayne Rainey said: "How the hell did you do that? and I said: "I have no idea.""

Religion and Spirituality

Csikszentmihályi may have been the first to describe this concept in Western psychology, he was most certainly not the first to quantify the concept of flow or develop applications based on the concept.

For millennia, practitioners of Eastern religions such as Hinduism, Buddhism, Taoism and later in Sufism have honed the discipline of overcoming the duality of self and object as a central feature of spiritual development. Eastern spiritual practitioners have developed a very thorough and holistic set of theories around overcoming duality of self and object, tested and refined through spiritual practice instead of the systematic rigor and controls of modern science.

Csikszentmihályi's flow concept relates to the idea of being at one with things or as psychology expert, Kendra Cherry, describes it: "complete immersion in an activity". Practitioners of the varied schools of Zen Buddhism apply concepts similar to flow to aid their mastery of art forms, including, in the case of Japanese Zen Buddhism, Aikido, Cheng Hsin, Judo, Honkyoku, Kendo and Ikebana. In yogic traditions such as Raja Yoga, reference is made to a state of flow in the practice of Samyama, a psychological absorption in the object of meditation. Theravada Buddhism refers to "access concentration", which is a state of flow achieved through meditation and used to further strengthen concentration into jhana, and/or to develop insight.

In Islam, the first mental state that precedes human action is known as jila al-khatir, which roughly translates to 'cleansing the heart'.

Gaming

Flow is one of the main reasons that people play video games. It improves performance; calling the phenomenon "TV trance", a 1981 BYTE article discussed how "the best seem to enter a trance where they play but don't pay attention to the details of the game". The primary goal of games is to create entertainment through intrinsic motivation, which is related to flow; that is, without intrinsic motivation it is virtually impossible to establish flow. Through the balance of skill and challenge the player's brain is aroused, with attention engaged and motivation high. Thus, the use of flow in games helps foster an enjoyable experience which in turn increases motivation and draws players to continue playing. As such, game designers strive to integrate flow principles into their projects. Overall, the experience of play is fluid and is intrinsically psychologically rewarding independent of scores or in-game successes in the flow state.

In games often much can be achieved thematically through an imbalance between challenge level and skill level. Horror games often keep challenges significantly above the player's level of competency in order to foster a continuous feeling of anxiety. Conversely, so called "relaxation games" keep the level of challenges significantly below the player's competency level, in order to achieve a similar but opposite effect. The video game Flow was designed as part of Jenova Chen's

master's thesis for exploring the design decisions that allow players to achieve the flow state, by adjusting the difficulty dynamically during play.

Flow in games has been linked to the Laws of Learning as part of the explanation for why learning-games (the use of games to introduce material, improve understanding, or increase retention) have the potential to be effective. In particular, flow is intrinsically motivating, which is part of the Law of Readiness. The condition of feedback, required for flow, is associated with the feedback aspects of the Law of Exercise. This is exhibited in well designed games, in particular, where players perform at the edge of their competency as they are guided by clear goals and feedback. The positive emotions associated with flow are associated with the Law of Effect. The intense experiences of being in a state of flow are directly associated with the Law of Intensity. Thus, the experience of gaming can be so engaging and motivating as it meets many of the Laws of Learning, which are inextricably connected to creating flow.

Design of Intrinsically Motivated Computer Systems

A simplified modification to flow has been combined with the technology acceptance model (TAM) to help guide the design of and explain the adoption of intrinsically motivated computer systems. This model, the hedonic-motivation system adoption model (HMSAM) is model to improve the understanding of hedonic-motivation systems (HMS) adoption. HMS are systems used primarily to fulfill users' intrinsic motivations, such for online gaming, virtual worlds, online shopping, learning/education, online dating, digital music repositories, social networking, online pornography, gamified systems, and for general gamification. Instead of a minor, TAM extension, HMSAM is an HMS-specific system acceptance model based on an alternative theoretical perspective, which is in turn grounded in flow-based concept of cognitive absorption (CA). The HMSAM further builds on van der Heijden's (2004) model of hedonic system adoption by including CA as a key mediator of perceived ease of use (PEOU) and of behavioral intentions to use (BIU) hedonic-motivation systems. Typically, models simplistically represent "intrinsic motivations" by mere perceived enjoyed. Instead, HMSAM uses the more complex, rich construct of CA, which includes joy, control, curiosity, focused immersion, and temporal dissociation. CA is construct that is grounded in the seminal flow literature, yet ironically CA has traditionally been used as a static construct, as if all five of its subconstructs occur at the same time--in direct contradiction to the flow literature. Thus, part of HMSAM's contribution is to return CA closer to its flow roots by re-ordering these CA subconstructs into more natural process-variance order as predicted by flow. Empirical data collection along with mediation tests further support this modeling approach.

Professions and Work

Developers of computer software reference getting into a flow state as "wired in", or sometimes as

The Zone, hack mode, or operating on software time when developing in an undistracted state. Stock market operators often use the term "in the pipe" to describe the psychological state of flow when trading during high volume days and market corrections. Professional poker players use the term "playing the A-game" when referring to the state of highest concentration and strategical awareness, while pool players often call the state being in "dead stroke".

In the Workplace

Conditions of flow, defined as a state in which challenges and skills are equally matched, play an extremely important role in the workplace. Because flow is associated with achievement, its development could have concrete implications in increasing workplace satisfaction and accomplishment. Flow researchers, such as Csikszentmihályi, believe that certain interventions may be performed to enhance and increase flow in the workplace, through which people would gain "intrinsic rewards that encourage persistence" and provide benefits. In his consultation work, Csikszentmihályi emphasizes finding activities and environments that are conducive to flow, and then identifying and developing personal characteristics to increase experiences of flow. Applying these methods in the workplace, can improve morale by fostering a sense of greater happiness and accomplishment, which may be correlated with increased performance. In his review of Mihály Csikszentmihályi's book "Good Business: Leadership, Flow, and the Making of Meaning," Coert Visser introduces the ideas presented by Csikszentmihályi, including "good work" in which one "enjoys doing your best while at the same time contributing to something beyond yourself." He then provides tools by which managers and employees can create an atmosphere that encourages good work. Some consultants suggest that the experience sampling form (EMS) method be used for individuals and teams in the workplace in order to identify how time is currently being spent, and where focus should be redirected to in order to increase flow experiences.

In order to achieve flow, Csikszentmihályi lays out the following three conditions:

Goals are clear

Feedback is immediate

A balance between opportunity and capacity

Csikszentmihályi argues that with increased experiences of flow, people experience "growth towards complexity". People flourish as their achievements grow and with that comes development of increasing "emotional, cognitive, and social complexity." Creating a workplace atmosphere that allows for flow and growth, Csikszentmihályi argues, can increase the happiness and achievement of employees. An increasingly popular way of promoting greater flow in the workplace is using Serious Play facilitation methods. Some commercial organisations have used the concept of flow in building corporate branding and identity for example The Floop Limited which created its company brand from the concept.

Barriers

There are, however, barriers to achieving flow in the workplace. In his chapter "Why Flow Doesn't Happen on the Job," Csikszentmihályi argues the first reason that flow does not occur is that the goals of one's job are not clear. He explains that while some tasks at work may fit into a larger, organization plan, the individual worker may not see where their individual task fits it. Second, limited feedback about one's work can reduce motivation and leaves the employee unaware of whether or not they did a good job. When there is little communication of feedback, an employee may not be assigned tasks that challenge them or seem important, which could potentially prevent an opportunity for flow.

In the study "Predicting flow at work: Investigating the activities and job characteristics that predict flow states at work", Karina Nielsen and Bryan Cleal used a 9- item flow scale to examine predictors of flow at two levels: activity level (such as brainstorming, problem solving, and evaluation) and at a more stable level (such as role clarity, influence, and cognitive demands). They found that activities such as planning, problem solving, and evaluation predicted transient flow states, but that more stable job characteristics were not found to predict flow at work. This study can help us identify which task at work can be cultivated and emphasized in order to help employees experience flow on the job. In her article in Positive Psychology News Daily, Kathryn Britton examines the importance of experiencing flow in the workplace beyond the individual benefits it creates. She writes, "Flow isn't just valuable to individuals; it also contributes to organizational goals. For example, frequent experiences of flow at work lead to higher productivity, innovation, and employee development (Csikszentmihályi, 1991, 2004). So finding ways to increase the frequency of flow experiences can be one way for people to work together to increase the effectiveness of their workplaces."

Outcomes

Positive experiences

Books by Csikszentmihályi suggest that enhancing the time spent in flow makes our lives more happy and successful. Flow experiences are predicated to lead to positive affect as well as to better performance. For example, delinquent behavior was reduced in adolescents after two years of enhancing flow through activities.

However, further empirical evidence is required to substantiate these preliminary indications, as flow researchers continue to explore the problem of how to directly investigate causal consequences of flow experiences using modern scientific instrumentation to observe the neuro-physiological correlates of the flow state.

Positive Affect and Life Satisfaction

Flow is an innately positive experience; it is known to "produce intense feelings of enjoyment". An experience that is so enjoyable should lead to positive affect and happiness in the long run. Also, Csikszentmihályi stated that happiness is derived from personal development and growth - and flow situations permit the experience of personal development.

Several studies found that flow experiences and positive affect go hand in hand, and that challenges and skills above the individual's average foster positive affect. However, the causal processes underlying those relationships remains unclear at present.

Performance and Learning

Flow experiences imply a growth principle. When one is in a flow state, he or she is working to master the activity at hand. To maintain that flow state, one must seek increasingly greater challenges. Attempting these new, difficult challenges stretches one's skills. One emerges from such a flow experience with a bit of personal growth and great "feelings of competence and efficacy". By increasing time spent in flow, intrinsic motivation and self-directed learning also increases.

Flow has a documented correlation with high performance in the fields of artistic and scientific creativity, teaching, learning, and sports;

Flow has been linked to persistence and achievement in activities while also helping to lower anxiety during various activities and raise self-esteem.

However, evidence regarding better performance in flow situations is mixed. For sure, the association between the two is a reciprocal one. That is, flow experiences may foster better performance but, on the other hand, good performance makes flow experiences more likely. Results of a longitudinal study in the academic context indicate that the causal effect of flow on performance is only of small magnitude and the strong relationship between the two is driven by an effect of performance on flow. In the long run, flow experiences in a specific activity may lead to higher performance in that activity as flow is positively correlated with a higher subsequent motivation to perform and to perform well.

Criticism

Csikszentmihályi writes about the dangers of flow himself:

...enjoyable activities that produce flow have a potentially negative effect: while they are capable of improving the quality of existence by creating order in the mind, they can become addictive, at

which point the self becomes captive of a certain kind of order, and is then unwilling to cope with the ambiguities of life.

Further, he writes:

The flow experience, like everything else, is not "good" in an absolute sense. It is good only in that it has the potential to make life more rich, intense, and meaningful; it is good because it increases the strengths and complexity of the self. But whether the consequence of any particular instance of flow is good in a larger sense needs to be discussed and evaluated in terms of more inclusive social criteria.

ARABPSYCHOLOGY.COM