

Entry

Work-Related Flow in Career Sustainability

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Definition: Originated during the 1970s by psychologist Mihaly Csikszentmihalyi, the theory of work-related flow has the following features: (1) the goals pursued are clear; (2) each action taken results in instantaneous feedback; (3) the skills required are equal to the challenges presented; (4) awareness and action for how to proceed are integrated; (5) consciousness is focused while distractions are ignored; (6) failure is not considered an option; (7) self-consciousness is non-existent; (8) time awareness is distorted; and (9) the engaged activity is the end in itself. According to research findings, it is the optimal work-related experience to sustain careers.

Keywords: work-related flow; Csikszentmihalyi; career sustainability

1. History

Work-related flow is a theory associated with career sustainability [1] pioneered by psychologist Mihaly Csikszentmihalyi (1934–2021 [2]) that was developed based on an analysis of those experiences judged as enjoyable by people involved in various activities he described as “play-forms” related to artistic endeavors (dance; music composition), athletic pursuits (basketball; rock climbing), and games (chess) [3]. Although the constant was that the activity was enjoyable, the focus of the theory, however, was not the judgment of experience. Instead, it was the conditions under which challenging activities are sustainable. According to Csikszentmihalyi, “flow makes us feel better in the moment, enabling us to experience the remarkable potential of the body and mind fully functioning in harmony. But what makes flow an even more significant tool is its ability to improve the quality of life in the long run” [4] (p. 63). This concentration by Csikszentmihalyi on a continuing process, in contrast to a time-dependent judgment, presents why work-related flow theory aims at career sustainability.

A theory recognized in contemporary psychology as one of the most significant [5] for over four decades, flow has directed a vast amount [6] of research ranging in many disciplines [7]. What identifies flow regarding an activity is that it is a process directed to a goal in meeting challenges guided by a person’s unique interests. Flow is optimal for experiences that are work related [8]. To be optimal, the experience throughout the process depends on several elements: (1) the goals pursued are clear; (2) each action taken results in instantaneous feedback; (3) the skills required are equal to the challenges presented; (4) awareness and action for how to proceed are integrated; (5) consciousness is focused while distractions are ignored; (6) failure is not considered an option; (7) self-consciousness is non-existent; (8) awareness of time is distorted; and (9) the engaged activity is the end in itself [9]. Flow theory has been identified as the center of Positive Psychology, concentrating on the pursuits selected by people when they are neither oppressed nor suffering [10] (p. 3). Work-related flow became particularly important in 1990 after the publication of *Flow: The Psychology of Optimal Experience* [11] by Csikszentmihalyi. There were 23 languages that *Flow* had been translated into by 2021 when Csikszentmihalyi died. *Flow* remains a primary reason why Csikszentmihalyi is a leader among psychologists cited in several fields [12]. A reason for this high rate of citation for Csikszentmihalyi’s publications may be that the theory of flow is reliable, has been validated [13], and except for some refinement [14], is



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identical to as it was first developed [15]. This assessment of Csikszentmihalyi's influence has been noted elsewhere [16].

Bakker gathered the most prominent definitions of flow in general in his 2008 publication [17] and summarized it as having three elements: total immersion in an activity (absorption), enjoyment, and intrinsic motivation. As such, flow can exist outside work-related experiences in playful activities, as Csikszentmihalyi initially identified [3]. Within work-related situations, absorption refers to employees' complete concentration and immersion in their work, with time passing quickly without distractions. Enjoyment is the assessment when employees judge their flow experience. Intrinsic motivation means employees perform their work-related activity with inherent pleasure and satisfaction, permitting them to be continuously interested in and fascinated by their work. Yet, Bakker defined work-related flow as a short-term peak experience, differing from Csikszentmihalyi, who studied it as a continuing experience relevant to career sustainability. This interpretation of worked-related flow by Bakker [18] is based on the Ryan and Deci understanding of self-determination theory [19], one that represents an alternative explication that has been referenced by several authors as their basis of understanding flow [6,20,21], but not by Csikszentmihalyi.

2. Related Concepts

Previously [16], regarding psychological assessment in work settings, two related concepts were contrasted with work-related flow in studies of career sustainability [22–24]. They are happiness promotion and assessing PERMA (Positive Emotions, Engagement, Relationships, Meaning, and Accomplishment) factors. Happiness promotion strives to maintain a state of pleased satisfaction with current experience, yet it is sometimes associated with system justification, resistance to change, and insensitivity to inequality and social injustice [25]. PERMA represents five measurable factors of Positive Psychology that are difficult to differentiate from a general sense of well-being and daily experiences of a life lived well [26]. A focus on happiness regards a fixed point in time rather than continuous work sustainability [27,28], and the measurement of PERMA factors is unreliable concerning career sustainability [29,30]. Therefore, neither happiness promotion nor PERMA factor measurements are definitive predictors of career sustainability, unlike supporting the process of work-related flow. Contrasted to research interest in promoting happiness or identifying the PERMA factor of Positive Emotions at work, flow in Csikszentmihalyi's research findings is not identical to enjoyment (although enjoying the activities is evident [31] (pp. xx–xxi)); employees prefer and engage in flow activities because they are optimally challenging and produce experiences that are optimal in work [32]. Neither of these identified reasons for engaging in flow activities is accessible from research concerning either happiness or PERMA factors regarding career sustainability.

From the perspective of career sustainability, work-related flow is a continuous process undertaken throughout a career. Yet, in trying to create the conditions for flow, some research has concentrated on how those in flow appear when engaged in flow rather than concerning a focus on maintaining the work undertaken as part of a career [33]. In this regard, the suggestion is that permitting employees to set up playful conditions is a means to achieving flow [34]. The problem with centering attention on playfulness is that flow in this manner can only be maintained when the employees are permitted to arrange their work experience to be playful. Consequently, flow is not intrinsic to the work undertaken [35]. Research that has depended on considering flow as sustainability throughout a person's career has found that psychological capital, work-related flow, and employee creativity were significantly positively associated with each other; furthermore—as of 2015, when this research was published [36]—men were found to have each of these three qualities in a work-related setting more than women, likely because active, tenured, low-strain jobs requiring substantial decision making are those that increase experiencing flow and are the jobs for which women are unrepresented [37].

Research focus on work-related flow has attempted in one case to consider this type of flow as time dependent in differentiating flow from work engagement, where work engagement is considered continuing and flow contrasted as “fleeting” [38] (p. 452). This distinction erroneously portrays the work-related flow witnessed by Csikszentmihalyi in his original research on 91 illustrious people [9] to be concerning what is time dependent. Instead, Csikszentmihalyi aimed to identify what permits such people to sustain their careers over a lifetime, and “flow” was the name he gave to his findings.

Another model developed in contrast to work engagement in considering work-related flow that does continue to recognize flow as contingent on career sustainability is the VIVA sustainable workplace engagement model [39]. It consists of four components: Virtuous, Involved, Vital, and Accepting. Virtuous is being personally authentic; Involved concerns dedication and absorption; Vital includes being alert, lively, and energetic; and Accepting relates to perceiving life and existence as significant. What is relevant regarding this model is that its focus is career sustainability. As such, although each of the aspects of the model is no more than what has been identified by Csikszentmihalyi in his original work, the arrangement of these factors into four components has made it evident that each is necessary and sufficient for sustained work engagement over a career, i.e., to achieve work-related flow.

The individual works of Bakker concerning his body of research on flow [17,18,40–42] have been referenced concomitantly with the work of Csikszentmihalyi by others studying work-related flow [6,20,21] as if these two authors’ interpretation of flow were identical. Only one study has noted the problems inherent in this type of identification [15]. The focus of Bakker regarding work-related flow concerns enjoyment. Although Csikszentmihalyi began his investigations regarding what people find enjoyable when they feel fully engaged in challenging activities [3], he identified flow as the activity required for career sustainability. In contrast, Bakker, in maintaining his concentration on work enjoyment, defines work-related flow “as a short-term peak experience characterized by absorption, work enjoyment, and intrinsic work motivation” [40]. Therefore, scholars who study flow regarding the meaning of the term as envisioned by Bakker represent an alternative definition of flow concerning career sustainability to that of Csikszentmihalyi. Although Bakker’s most recent publication has now modified this assessment of flow to “people sometimes enter a state that is characterized by being fully engaged, up to the point where they tend to have very low levels of self-reflection and are hardly conscious of their surroundings” [43], it is still evident that Bakker’s focus regarding flow is time dependent rather than career sustainable. Therefore, the results of studies supporting Bakker’s interpretation of flow should not be considered an indication of measures that may affect career sustainability concerning work-related flow.

3. Interpretation and Influences

Concerning creating the conditions necessary for career sustainability, reviews of flow research that identify studies on work-related flow reveal little [15,22]. Only three reports published in the last five years provide details. Figure 1 depicts these three reports and their relationship to their cited work of Csikszentmihalyi. Notable is that an interpretation of the theory is the basis of one of these works [24] and not Csikszentmihalyi’s theory of work-related flow. The two other reports [44,45] published in disparate fields represent studies directly influenced by the work-related flow theory of Csikszentmihalyi regarding career sustainability. An examination of these three reports of Csikszentmihalyi’s influence has been provided elsewhere [16]. Also included in Figure 1 are the references to the citations made to the works by Csikszentmihalyi in each of these three studies [5,9,11,32,46–53].

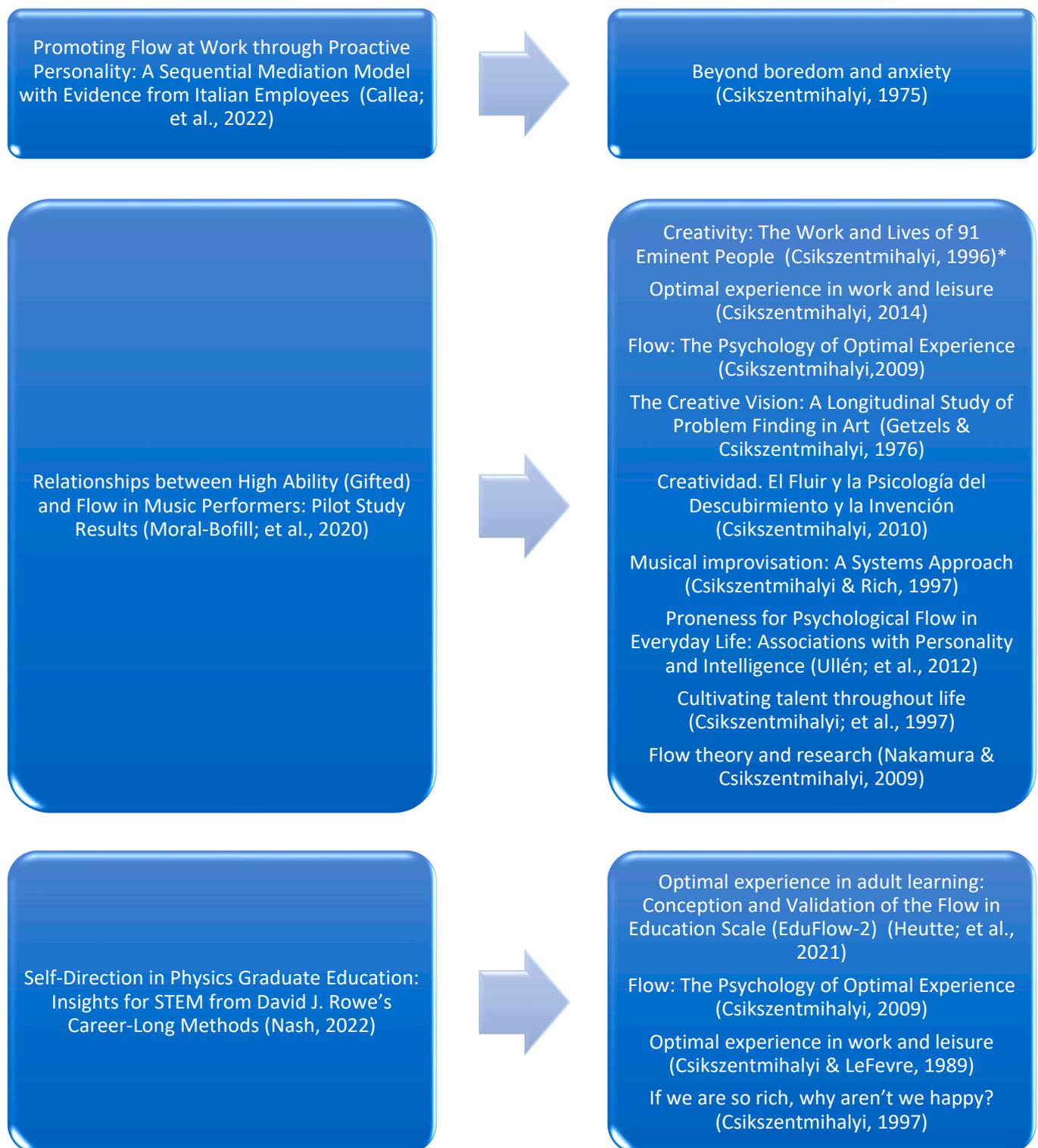


Figure 1. Three articles that detail the relationship between Csikszentmihalyi's account of work-related flow and career sustainability [24,44,45], and the Csikszentmihalyi articles cited in the three papers [5,9,11,32,46–53]. * This reference has been renamed by the publisher and is now called *Creativity: Flow and the Psychology of Discovery and Invention*.

4. Current Status

Interest in work-related flow has remained regarding career sustainability over the years; nevertheless, research focus on career sustainability has shifted from a study of flow

to investigations of happiness and aspects of PERMA as the predominant concerns even when Csikszentmihalyi's research on flow is referenced [54–57]. A paucity of research devoted to Csikszentmihalyi's understanding of the process of work-related flow is the result [24,44,45]. Yet, it is a concept that has proven its value for career sustainability, unlike either a focus on time-dependent happiness or PERMA factors, revealed to be deficient in their construction. This lack of research is particularly evident for those careers that do not depend on creativity and refined technical knowledge for success.

Csikszentmihalyi believed that flow could be taught. As a result, in 2010, he began cooperative development of what is referred to as a “serious game” (an education and training tool replicating an entertainment game) to help teach flow within work-related settings [58]. The result was the leadership simulation game *Flow in Good Business*, referred to as FLIGBY. According to the FLIGBY website, “FLIGBY is an online, single-user, scenario-based Serious Game in an Interactive Movie format. This Leadership Simulation has the look and feel of a game while simulating real-world business events and processes” [59]. FLIGBY won the “Gold Medal Prize of the International Serious Play Awards” in 2012. By the time of research published on FLIGBY in 2017 by Buzady, over 10,000 participants worldwide had used FLIGBY in either corporate or university settings [58]. It is unclear whether Csikszentmihalyi believed the skills developed by FLIGBY translated to work-related flow to promote career sustainability as he did not publish on it. One reason these skills may not be equivalent to the flow promoting career sustainability is that progress in this serious game is evident by users gaining trophies and badges for their successful work [58]. As such, this type of reward system contradicts the importance of intrinsic motivation to flow activities rather than external rewards [35]. However, Csikszentmihalyi also believed that “most people need some inducement to participate in flow activities, at least at the beginning, before they learn to be sensitive to intrinsic rewards” [3]. FLIGBY rewards may produce this inducement.

5. Prospects

A redirection of development efforts to work-related flow in contrast to a focus on promoting happiness or measuring PERMA factors can enhance career sustainability. It is also possible that work-related flow is teachable through training involving playing the serious game FLIGBY. In current work settings, the promotion of flow with a goal of career sustainability concentrates on recruiting employees with the courage to be different who possess independent thought and action and who have high levels of self-confidence [44]. Also important is supporting programs that provide those who might engage in flow with spaces designed appropriately, time to experience valued activities, and the assignment of open-minded supervisors in their approach to problem-solving activities—those who can provide foundational contributions regarding the theoretical aspect of solving work-related problems [45]. Efforts in promoting work-related flow for career sustainability should also concentrate on finding the ways and means for more women to enter the conditions for flow through access to active, tenured, and low-strain jobs with high decision latitude. Affirmative action policies have been found successful in this regard [60]. Studying the works by Csikszentmihalyi regarding work-related flow mentioned in Figure 1 would be additionally helpful in supporting sustainable careers. In doing so, the urge to equate flow with enjoyment should be avoided as the focus then would be setting up the conditions for workers to focus on the time-dependent goals of being happy in contrast to a focus on career sustainability through work that is optimally challenging, the actual intent of Csikszentmihalyi's theory of work-related flow.

The strengths of this analysis are that the relevance of work-related flow to career sustainability from the point of view of Csikszentmihalyi has been made clear, and it is now evident that Bakker's research on work-related flow as a short-term experience differs from considerations of career sustainability. Furthermore, this study has identified VIVA as a model relevant to both work-related flow and career sustainability and found that the serious game FLIGBY might teach employees work-related flow so that it is career

sustainable. The weaknesses of this research are that there is no information identified on the perspective of Csikszentmihalyi regarding Bakker's view that work-related flow is a short-term experience as the two never published together and Csikszentmihalyi did not comment on Bakker's work. Similarly, research is unavailable on what Csikszentmihalyi thought of the final version of FLIGBY for teaching work-related flow. As Csikszentmihalyi is no longer alive, it is impossible to overcome these weaknesses. What would be helpful in this regard is for both Bakker and the creator of FLIGBY (Buzady) themselves to address the differences between their views of work-related flow and that of Csikszentmihalyi. In this way, the limits to how work-related flow can enhance career sustainability can become additionally evident. As the VIVA model has elements directly related to career sustainability in work-related flow, continued research regarding this model is advised.

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References

1. Coun, M.J.H.; Edelbroek, R.; Peters, P.; Blomme, R.J. Leading Innovative Work-Behavior in Times of COVID-19: Relationship Between Leadership Style, Innovative Work-Behavior, Work-Related Flow, and IT-Enabled Presence Awareness During the First and Second Wave of the COVID-19 Pandemic. *Front. Psychol.* **2021**, *12*, 717345. [[CrossRef](#)]
2. Zuzanek, J. Tribute to Mihaly Csikszentmihalyi (1934–2021). *Soc. Leis.* **2022**, *45*, 445–447. [[CrossRef](#)]
3. Csikszentmihalyi, M. Play and Intrinsic Rewards. *J. Humanist. Psychol.* **1975**, *15*, 41–63. [[CrossRef](#)]
4. Csikszentmihalyi, M. *Good Business: Leadership, Flow, and the Making of Meaning*; Viking: New York, NY, USA, 2003; ISBN 978-0-670-03196-2.
5. Heutte, J.; Fenouillet, F.; Martin-Krumm, C.; Gute, G.; Raes, A.; Gute, D.; Bachelet, R.; Csikszentmihalyi, M. Optimal Experience in Adult Learning: Conception and Validation of the Flow in Education Scale (EduFlow-2). *Front. Psychol.* **2021**, *12*, 828027. [[CrossRef](#)] [[PubMed](#)]
6. Abuhamdeh, S. Investigating the “Flow” Experience: Key Conceptual and Operational Issues. *Front. Psychol.* **2020**, *11*, 158. [[CrossRef](#)] [[PubMed](#)]
7. Zhang, Y.; Wang, F. Developments and Trends in Flow Research Over 40 Years: A Bibliometric Analysis. *Collabra Psychol.* **2024**, *10*, 92948. [[CrossRef](#)]
8. Zito, M.; Cortese, C.G.; Colombo, L. The Role of Resources and Flow at Work in Well-Being. *SAGE Open* **2019**, *9*, 215824401984973. [[CrossRef](#)]
9. Csikszentmihalyi, M. *Creativity: Flow and the Psychology of Discovery and Invention*, 1st ed.; HarperCollins Publishers: New York, NY, USA, 1996; ISBN 978-0-06-017133-9.
10. Seligman, M.E.P. Positive Psychology: A Personal History. *Annu. Rev. Clin. Psychol.* **2019**, *15*, 1–23. [[CrossRef](#)] [[PubMed](#)]
11. Csikszentmihalyi, M. *Flow: The Psychology of Optimal Experience*; Harper Perennial Modern Classics; Nachdr.; Harper & Row: New York, NY, USA, 2009; ISBN 978-0-06-133920-2.
12. Csikszentmihalyi, M.; Csikszentmihalyi, I.S. *Optimal Experience: Psychological Studies of Flow in Consciousness*; Cambridge University Press: Cambridge, UK, 1988; ISBN 978-1-316-04120-8.
13. Basyouni, S.S.; El Keshky, M.E.S. Job Insecurity, Work-Related Flow, and Financial Anxiety in the Midst of COVID-19 Pandemic and Economic Downturn. *Front. Psychol.* **2021**, *12*, 632265. [[CrossRef](#)]
14. Van Oortmerssen, L.A.; Caniels, M.C.J.; Van Assen, M.F. Coping with Work Stressors and Paving the Way for Flow: Challenge and Hindrance Demands, Humor, and Cynicism. *J. Happiness Stud.* **2020**, *21*, 2257–2277. [[CrossRef](#)]
15. Engeser, S.; Schiepe-Tiska, A.; Peifer, C. Historical Lines and an Overview of Current Research on Flow. In *Advances in Flow Research*; Peifer, C., Engeser, S., Eds.; Springer International Publishing: Cham, Switzerland, 2021; pp. 1–29, ISBN 978-3-030-53467-7.
16. Nash, C. Work-Related Flow in Contrast to Either Happiness or PERMA Factors for Human Resources Management Development of Career Sustainability. *Psych* **2024**, *6*, 356–375. [[CrossRef](#)]
17. Bakker, A.B. The Work-Related Flow Inventory: Construction and Initial Validation of the WOLF. *J. Vocat. Behav.* **2008**, *72*, 400–414. [[CrossRef](#)]
18. Liu, W.; Lu, H.; Li, P.; Van Der Linden, D.; Bakker, A.B. Antecedents and Outcomes of Work-Related Flow: A Meta-Analysis. *J. Vocat. Behav.* **2023**, *144*, 103891. [[CrossRef](#)]
19. Ryan, R.M.; Deci, E.L. Self-Determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well-Being. *Am. Psychol.* **2000**, *55*, 68–78. [[CrossRef](#)] [[PubMed](#)]

20. Aydin Kucuk, B. Work Flow Experience in the Light of Leader-Member Exchange and Person-Job Fit Theories. *Psychol. Rep.* **2022**, *125*, 464–497. [[CrossRef](#)]
21. Fullagar, C.; Delle Fave, A.; Van Krevelen, S. Flow at Work. In *Current Issues in Work and Organizational Psychology*; Cooper, C., Ed.; Routledge: London, UK, 2018; pp. 278–299, ISBN 978-0-429-46833-9.
22. Gómez-Salgado, J.; Navarro-Abal, Y.; López-López, M.J.; Romero-Martín, M.; Climent-Rodríguez, J.A. Engagement, Passion and Meaning of Work as Modulating Variables in Nursing: A Theoretical Analysis. *Int. J. Environ. Res. Public Health* **2019**, *16*, 108. [[CrossRef](#)] [[PubMed](#)]
23. Tur-Porcar, A.; Roig-Tierno, N.; Llorca Mestre, A. Factors Affecting Entrepreneurship and Business Sustainability. *Sustainability* **2018**, *10*, 452. [[CrossRef](#)]
24. Callea, A.; Caracuzzo, E.; Costanzi, M.; Urbini, F. Promoting Flow at Work through Proactive Personality: A Sequential Mediation Model with Evidence from Italian Employees. *Sustainability* **2022**, *14*, 2477. [[CrossRef](#)]
25. Oishi, S.; Westgate, E.C. A Psychologically Rich Life: Beyond Happiness and Meaning. *Psychol. Rev.* **2022**, *129*, 790–811. [[CrossRef](#)]
26. Heshmati, S.; Kibrislioglu Uysal, N.; Kim, S.H.; Oravec, Z.; Donaldson, S.I. Momentary PERMA: An Adapted Measurement Tool for Studying Well-Being in Daily Life. *J. Happiness Stud.* **2023**, *24*, 2441–2472. [[CrossRef](#)]
27. Zhong, Y.; Moon, H.C. What Drives Customer Satisfaction, Loyalty, and Happiness in Fast-Food Restaurants in China? Perceived Price, Service Quality, Food Quality, Physical Environment Quality, and the Moderating Role of Gender. *Foods* **2020**, *9*, 460. [[CrossRef](#)] [[PubMed](#)]
28. Kekes, J. Happiness. *Mind* **1982**, *91*, 358–376. [[CrossRef](#)]
29. Ibrahim, N.F.; Mohamad Sharif, S.; Saleh, H.; Mat Hasan, N.H.; Jayiddin, N.F. PERMA Well-Being and Innovative Work Behaviour: A Systematic Literature Review. *F1000 Res.* **2023**, *12*, 1338. [[CrossRef](#)] [[PubMed](#)]
30. Ryff, C.D. Positive Psychology: Looking Back and Looking Forward. *Front. Psychol.* **2022**, *13*, 840062. [[CrossRef](#)] [[PubMed](#)]
31. Csikszentmihalyi, M. *Applications of Flow in Human Development and Education: The Collected Works of Mihaly Csikszentmihalyi*, 1st ed.; Springer: Dordrecht, The Netherlands, 2014; ISBN 978-94-017-9094-9.
32. Csikszentmihalyi, M.; LeFevre, J. Optimal Experience in Work and Leisure. *J. Personal. Soc. Psychol.* **1989**, *56*, 815–822. [[CrossRef](#)]
33. Soriano, A.; Kozusznik, M.W.; Peiró, J.M.; Demerouti, E. Employees' Work Patterns—Office Type Fit and the Dynamic Relationship Between Flow and Performance. *Appl. Psychol.* **2021**, *70*, 759–787. [[CrossRef](#)]
34. Liu, W.; Bakker, A.B.; Tse, B.T.; Van Der Linden, D. Does Playful Work Design 'Lead to' More Creativity? A Diary Study on the Role of Flow. *Eur. J. Work. Organ. Psychol.* **2023**, *32*, 107–117. [[CrossRef](#)]
35. Nakamura, J.; Csikszentmihalyi, M. The Concept of Flow. In *Handbook of Positive Psychology*; Snyder, C.R., Lopez, S.J., Eds.; Oxford University Press: New York, NY, USA, 2005; pp. 89–105, ISBN 978-0-19-518279-8.
36. Zubair, A.; Kamal, A. Work Related Flow, Psychological Capital, and Creativity Among Employees of Software Houses. *Psychol. Stud.* **2015**, *60*, 321–331. [[CrossRef](#)]
37. Fagerlind, A.-C.; Gustavsson, M.; Johansson, G.; Ekberg, K. Experience of Work-Related Flow: Does High Decision Latitude Enhance Benefits Gained from Job Resources? *J. Vocat. Behav.* **2013**, *83*, 161–170. [[CrossRef](#)]
38. Yan, Q.; Donaldson, S.I. What Are the Differences between Flow and Work Engagement? A Systematic Review of Positive Intervention Research. *J. Posit. Psychol.* **2023**, *18*, 449–459. [[CrossRef](#)]
39. Ignjatovic, C.; Kern, M.L.; Oades, L.G. The VIVA Sustainable Work Engagement Model: A Conceptual Introduction and Preliminary Test Over Three Years. *Int. J. Appl. Posit. Psychol.* **2022**, *7*, 251–270. [[CrossRef](#)]
40. Bakker, A.B. Flow among Music Teachers and Their Students: The Crossover of Peak Experiences. *J. Vocat. Behav.* **2005**, *66*, 26–44. [[CrossRef](#)]
41. Mäkikangas, A.; Bakker, A.B.; Aunola, K.; Demerouti, E. Job Resources and Flow at Work: Modelling the Relationship via Latent Growth Curve and Mixture Model Methodology. *J. Occup. Organ. Psychol.* **2010**, *83*, 795–814. [[CrossRef](#)]
42. Bakker, A.B.; Van Woerkom, M. Flow at Work: A Self-Determination Perspective. *Occup. Health Sci.* **2017**, *1*, 47–65. [[CrossRef](#)]
43. Van Der Linden, D.; Tops, M.; Bakker, A.B. Go with the Flow: A Neuroscientific View on Being Fully Engaged. *Eur. J. Neurosci.* **2021**, *53*, 947–963. [[CrossRef](#)] [[PubMed](#)]
44. Moral-Bofill, L.; Llave, A.L.D.L.; Pérez-Llantada, M.C. Relationships between High Ability (Gifted) and Flow in Music Performers: Pilot Study Results. *Sustainability* **2020**, *12*, 4289. [[CrossRef](#)]
45. Nash, C. Self-Direction in Physics Graduate Education: Insights for STEM from David J. Rowe's Career-Long Methods. *Challenges* **2022**, *13*, 45. [[CrossRef](#)]
46. Csikszentmihalyi, M. *Beyond Boredom and Anxiety*, 1st ed.; The Jossey-Bass Behavioral Science Series; Jossey-Bass Publishers: San Francisco, CA, USA, 1975; ISBN 978-0-87589-261-0.
47. Getzels, J.W.; Csikszentmihalyi, M. *The Creative Vision: A Longitudinal Study of Problem Finding in Art*; Wiley: New York, NY, USA, 1976; ISBN 978-0-471-01486-7.
48. Csikszentmihalyi, M. *Creatividad: El Fluir y la Psicología del Descubrimiento y la Invención*; Paidós: Madrid, Spain, 2010; ISBN 978-84-493-0510-8.
49. Csikszentmihalyi, M.; Rich, G. Musical Improvisation: A Systems Approach. In *Creativity in Performance*; Sawyer, R.K., Ed.; Publications in Creativity Research; Ablex: Greenwich, CT, USA, 1997; pp. 43–66, ISBN 978-1-56750-336-4.

50. Ullén, F.; De Manzano, Ö.; Almeida, R.; Magnusson, P.K.E.; Pedersen, N.L.; Nakamura, J.; Csikszentmihályi, M.; Madison, G. Proneness for Psychological Flow in Everyday Life: Associations with Personality and Intelligence. *Personal. Individ. Differ.* **2012**, *52*, 167–172. [[CrossRef](#)]
51. Csikszentmihályi, M.; Whalen, S.; Rathunde, K. Cultivating Talent throughout Life. In *Talented Teenagers: The Roots of Success and Failure*; Cambridge University Press: Cambridge, UK, 1997; pp. 222–241, ISBN 978-0-521-41578-1.
52. Nakamura, J.; Csikszentmihályi, M. Flow Theory and Research. In *The Oxford Handbook of Positive Psychology*; Lopez, S.J., Snyder, C.R., Eds.; Oxford University Press: New York, NY, USA, 2009; pp. 194–206, ISBN 978-0-19-518724-3.
53. Csikszentmihályi, M. If We Are so Rich, Why Aren't We Happy? *Am. Psychol.* **1999**, *54*, 821–827. [[CrossRef](#)]
54. Peiró, J.M.; Montesa, D.; Soriano, A.; Kozusznik, M.W.; Villajos, E.; Magdaleno, J.; Djourova, N.P.; Ayala, Y. Revisiting the Happy-Productive Worker Thesis from a Eudaimonic Perspective: A Systematic Review. *Sustainability* **2021**, *13*, 3174. [[CrossRef](#)]
55. Roslan, N.S.; Yusoff, M.S.B.; Morgan, K.; Ab Razak, A.; Ahmad Shauki, N.I. What Are the Common Themes of Physician Resilience? A Meta-Synthesis of Qualitative Studies. *Int. J. Environ. Res. Public Health* **2022**, *19*, 469. [[CrossRef](#)] [[PubMed](#)]
56. Sweida, G.; Sherman, C.L. Does Happiness Launch More Businesses? Affect, Gender, and Entrepreneurial Intention. *Int. J. Environ. Res. Public Health* **2020**, *17*, 6908. [[CrossRef](#)] [[PubMed](#)]
57. Zito, M.; Colombo, L.; Borgogni, L.; Callea, A.; Cenciotti, R.; Ingusci, E.; Cortese, C. The Nature of Job Crafting: Positive and Negative Relations with Job Satisfaction and Work-Family Conflict. *Int. J. Environ. Res. Public Health* **2019**, *16*, 1176. [[CrossRef](#)] [[PubMed](#)]
58. Buzady, Z. Flow, Leadership and Serious Games—A Pedagogical Perspective. *World J. Sci. Technol. Sustain. Dev.* **2017**, *14*, 204–217. [[CrossRef](#)]
59. FLIGBY. *What Is Fligby? Developing Skills with Simulation*; FLIGBY: Los Angeles, CA, USA, 2024.
60. Henningsen, L.; Horvath, L.K.; Jonas, K. Affirmative Action Policies in Academic Job Advertisements: Do They Facilitate or Hinder Gender Discrimination in Hiring Processes for Professorships? *Sex Roles* **2022**, *86*, 34–48. [[CrossRef](#)]

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