

## REFERENCES

- [1] R. M. Ryan and E. L. Deci, "Intrinsic and Extrinsic Motivations: Classic Definitions and New Directions," *Contemp. Educ. Psychol.*, vol. 25, no. 1, pp. 54–67, Jan. 2000.
- [2] A. Efklides, "Interactions of Metacognition With Motivation and Affect in Self-Regulated Learning: The MASRL Model," *Educ. Psychol.*, vol. 46, no. 1, pp. 6–25, Jan. 2011.
- [3] L. Barker, C. L. Hovey, and L. D. Thompson, "Results of a largescale, multi-institutional study of undergraduate retention in computing," in *2014 IEEE Frontiers in Education Conference (FIE) Proceedings*, 2014, pp. 1–8.
- [4] R. Varma, "Making Computer Science Minority-friendly," *Commun. ACM*, vol. 49, no. 2, pp. 129–134, Feb. 2006.
- [5] J. E. Ormrod, *Human Learning*, 6 edition. Boston: Pearson, 2011.
- [6] M. Hewner, "How CS Undergraduates Make Course Choices," in *Proceedings of the Tenth Annual Conference on International Computing Education Research*, New York, NY, USA, 2014, pp. 115–122.
- [7] L. J. Barker, M. O'Neill, and N. Kazim, "Framing Classroom Climate for Student Learning and Retention in Computer Science," in *Proceedings of the 45th ACM Technical Symposium on Computer Science Education*, New York, NY, USA, 2014, pp. 319–324.
- [8] H. Tajfel and J. C. Turner, "An integrative theory of intergroup conflict," *Soc. Psychol. Intergroup Relat.*, vol. 33, no. 47, p. 74, 1979.
- [9] S. Cheryan, V. C. Plaut, C. Handron, and L. Hudson, "The Stereotypical Computer Scientist: Gendered Media Representations as a Barrier to Inclusion for Women," *Sex Roles*, vol. 69, no. 1, pp. 58–71, Jul. 2013.
- [10] K. Cushner and A. Others, *Human Diversity in Education: An Integrative Approach*. McGraw-Hill, Princeton Road, Hightstown, NJ 08520., 1992.
- [11] S. Beyer, "Why are women underrepresented in Computer Science? Gender differences in stereotypes, self-efficacy, values, and interests and predictors of future CS course-taking and grades," *Comput. Sci. Educ.*, vol. 24, no. 2–3, pp. 153–192, Jul. 2014.
- [12] C. M. Lewis, R. E. Anderson, and K. Yasuhara, "'I Don'T Code All Day': Fitting in Computer Science When the Stereotypes Don'T Fit," in *Proceedings of the 2016 ACM Conference on International Computing Education Research*, New York, NY, USA, 2016, pp. 23–32.
- [13] S. Beyer, K. Rynes, and S. Haller, "Deterrents to women taking computer science courses," *IEEE Technol. Soc. Mag.*, vol. 23, no. 1, pp. 21–28, Spring 2004.
- [14] L. Carter, "Why Students with an Apparent Aptitude for Computer Science Don'T Choose to Major in Computer Science," in *Proceedings of the 37th SIGCSE Technical Symposium on Computer Science Education*, New York, NY, USA, 2006, pp. 27–31.
- [15] C. Frieze, "Diversifying the Images of Computer Science: Undergraduate Women Take on the Challenge!," in *Proceedings of the 36th SIGCSE Technical Symposium on Computer Science Education*, New York, NY, USA, 2005, pp. 397–400.
- [16] S. Graham and C. Latulipe, "CS Girls Rock: Sparking Interest in Computer Science and Debunking the Stereotypes," in *Proceedings of the 34th SIGCSE Technical Symposium on Computer Science Education*, New York, NY, USA, 2003, pp. 322–326.
- [17] A. Jepson and T. Perl, "Priming the Pipeline," *SIGCSE Bull.*, vol. 34, no. 2, pp. 36–39, Jun. 2002.
- [18] "Science and Engineering Indicators: 2014," National Science Board, NSB 1401, 2014.
- [19] S. Cheryan and V. C. Plaut, "Explaining Underrepresentation: A Theory of Precluded Interest," *Sex Roles*, vol. 63, no. 7–8, pp. 475–488, Oct. 2010.
- [20] G. M. Walton and G. L. Cohen, "A question of belonging: Race, social fit, and achievement," *J. Pers. Soc. Psychol.*, vol. 92, no. 1, pp. 82–96, 2007.
- [21] L. Barker and J. M. Cohoon, "Key practices for retaining undergraduates in computing," *Natl. Cent. Women Inf. Technol. Www Ncwit Orgretainundergrads*, 2009.
- [22] E. S. Roberts, M. Kassianidou, and L. Irani, "Encouraging Women in Computer Science," *SIGCSE Bull.*, vol. 34, no. 2, pp. 84–88, Jun. 2002.
- [23] K. E. Chaney, D. T. Sanchez, and J. D. Remedios, "We are in this together: How the presence of similarly stereotyped allies buffer against identity threat," *J. Exp. Soc. Psychol.*, vol. 79, pp. 410–422, Nov. 2018.
- [24] T. L. Crenshaw, E. W. Chambers, and H. Metcalf, "A Case Study of Retention Practices at the University of Illinois at Urbana-Champaign," in *Proceedings of the 39th SIGCSE Technical Symposium on Computer Science Education*, New York, NY, USA, 2008, pp. 412–416.
- [25] A. N. Washington, L. Burge, M. Mejias, K. Jean-Pierre, and Q. Knox, "Improving Undergraduate Student Performance in Computer Science at Historically Black Colleges and Universities (HBCUs) Through Industry Partnerships," in *Proceedings of the 46th ACM Technical Symposium on Computer Science Education*, New York, NY, USA, 2015, pp. 203–206.
- [26] G. J. Johnson, "Of metaphor and difficulty of computer discourse," *Commun. ACM*, vol. 37, no. 12, pp. 97–103, 1994.
- [27] M. Tedre, E. Sutinen, E. Kähkönen, and P. Kommers, "Ethnocomputing: ICT in cultural and social context," *Commun. ACM*, vol. 49, no. 1, pp. 126–130, 2006.
- [28] J. Black, P. Curzon, C. Mykietiak, and P. W. McOwan, "A Study in Engaging Female Students in Computer Science Using Role Models," in *Proceedings of the 16th Annual Joint Conference on Innovation and Technology in Computer Science Education*, New York, NY, USA, 2011, pp. 63–67.
- [29] S. Cheryan, J. O. Siy, M. Vichayapai, B. J. Drury, and S. Kim, "Do Female and Male Role Models Who Embody STEM Stereotypes Hinder Women's Anticipated Success in STEM?," *Soc. Psychol. Personal. Sci.*, vol. 2, no. 6, pp. 656–664, Nov. 2011.
- [30] K. Treu and A. Skinner, "Ten Suggestions for a Gender-equitable CS Classroom," *SIGCSE Bull.*, vol. 34, no. 2, pp. 165–167, Jun. 2002.
- [31] A. Solomon, D. Moon, A. L. Roberts, and J. E. Gilbert, "Not Just Black and Not Just a Woman: Black Women Belonging in Computing," in *2018 Research on Equity and Sustained Participation in Engineering, Computing, and Technology (RESPECT)*, 2018, pp. 1–5.
- [32] N. Dasgupta, "Ingroup Experts and Peers as Social Vaccines Who Inoculate the Self-Concept: The Stereotype Inoculation Model," *Psychol. Inq.*, vol. 22, no. 4, pp. 231–246, Oct. 2011.
- [33] "Self-efficacy and mental models in learning to program." [Online]. Available: <http://dl.acm.org/citation.cfm?id=1008042>. [Accessed: 01-Aug-2016].
- [34] W. Aspray and A. Bernat, "Recruitment and retention of underrepresented minority graduate students in computer science," in *Report on a Workshop by the Coalition to Diversity Computing*, 2000.
- [35] A. N. Kumar, "A Study of Stereotype Threat in Computer Science," in *Proceedings of the 17th ACM Annual Conference on Innovation and Technology in Computer Science Education*, New York, NY, USA, 2012, pp. 273–278.
- [36] C. M. Steele and J. Aronson, "Stereotype threat and the intellectual test performance of African Americans," *J. Pers. Soc. Psychol.*, vol. 69, no. 5, pp. 797–811, 1995.
- [37] L. J. Barker, K. Garvin-Doxas, and M. Jackson, "Defensive Climate in the Computer Science Classroom," in *Proceedings of the 33rd SIGCSE Technical Symposium on Computer Science Education*, New York, NY, USA, 2002, pp. 43–47.
- [38] S. Cheryan, A. N. Meltzoff, and S. Kim, "Classrooms matter: The design of virtual classrooms influences gender disparities in computer science classes," *Comput. Educ.*, vol. 57, no. 2, pp. 1825–1835, Sep. 2011.
- [39] S. Cheryan, V. C. Plaut, P. G. Davies, and C. M. Steele, "Ambient belonging: How stereotypical cues impact gender participation in computer science," *J. Pers. Soc. Psychol.*, vol. 97, no. 6, pp. 1045–1060, 2009.
- [40] A. Fisher and J. Margolis, "Unlocking the Clubhouse: The Carnegie Mellon Experience," *SIGCSE Bull.*, vol. 34, no. 2, pp. 79–83, Jun. 2002.
- [41] J. Margolis, R. Estrella, J. Goode, J. J. Holme, and K. Nao, *Stuck in the shallow end: Education, race, and computing*. MIT Press, 2010.
- [42] "Computer science segregation: Creating opportunities," *The Voice*, vol. 4, no. 3, pp. 1–4, 2008.
- [43] L. Sax *et al.*, "Sense of Belonging in Computing: The Role of Introductory Courses for Women and Underrepresented Minority Students," *Soc. Sci.*, vol. 7, no. 8, p. 122, Jul. 2018.
- [44] C. Corbett and C. Hill, *Solving the Equation: The Variables for*

*Women's Success in Engineering and Computing*. American Association of University Women, 2015.

- [45] C. Alvarado and Z. Dodds, "Women in CS: An Evaluation of Three Promising Practices," in *Proceedings of the 41st ACM Technical Symposium on Computer Science Education*, New York, NY, USA, 2010, pp. 57–61.
- [46] M. Mejias, K. Jean-Pierre, L. Burge, and G. Washington, "Culturally Relevant CS Pedagogy - Theory and Practice," in *2018 Research on Equity and Sustained Participation in Engineering, Computing, and Technology (RESPECT)*, 2018, pp. 1–5.
- [49] G. Ladson-Billings, "But that's just good teaching! The case for culturally relevant pedagogy," *Theory Pract.*, vol. 34, no. 3, pp. 159–165, Jun. 1995.
- [50] J. Stout and T. Camp, "Now What?: Action Items from Social Science Research to Bridge the Gender Gap in Computing Research," *SIGCAS Comput Soc*, vol. 44, no. 4, pp. 5–8, Dec. 2014.
- [51] A. Gates, "The Role of Hispanic-Serving Institutions in Contributing to an Educated Work Force | December 2010 | Communications of the ACM," *Communications of the ACM*, vol. 53, no. 1, pp. 31–33, 2010.
- [47] "Ignoring Diversity Hurts Tech Products and Ventures," *Stanford eCorner*. .
- [48] B. Shneiderman, "Relate–Create–Donate: a teaching/learning philosophy for the cyber-generation," *Comput. Educ.*, vol. 31, no. 1, pp. 25–39, 1998.

