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The Library and Documentation Division (LDD) of NIE, NCERT is pleased to bring out “**Indexing & Abstracting Service of Periodicals**” for the month of **April, 2023**. This information product of LDD is the collection of Articles in the area of Educational Research, Elementary Education, Inclusive Education, and ICT in Education, Educational Psychology, Science Education and Teacher Education.

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## AMERICAN JOURNAL OF PHYSICS

1. Narayan, O. (2023). Is contour integration essential? Alternatives for beginning physics students. *American Journal of Physics*, 91(3), 170–176. <https://doi.org/10.1119/5.0084475>

**Abstract:** The standard method to evaluate many definite integrals that are encountered in physics is contour integration. Here, we show how these can be evaluated by other means, enlarging the toolbox available to students and enabling the discussion of physical problems where these integrals arise before contour integration is introduced.

2. Béguelin, J. F. Z. (2023). A shorter path to some action variables. *American Journal of Physics*, 91(3), 177–181. <https://doi.org/10.1119/5.0118683>

**Abstract:** This paper shows how to apply Leibniz's integral rule to calculate the action variables for the Kepler problem. This method offers an attractive alternative to the usual technique of complex contour integration. The method presented here to calculate definite integrals has a broad scope and is especially suitable for undergraduates who are unfamiliar with complex analysis.

3. George, B. C., Kontou, E., Przewoznik, P., & Turrell, E. (2023). An exploration of circumbinary systems using gravitational microlensing. *American Journal of Physics*, 91(3), 182–192. <https://doi.org/10.1119/5.0088604>

**Abstract:** Gravitational microlensing is one of the methods to detect exoplanets—planets outside our solar system. Here, we focus on the theoretical modeling of systems with three lensing objects and in particular circumbinary systems. Circumbinary systems include two stars and at least one planet and are estimated to represent a sizeable portion of all exoplanets. Extending a method developed for binary lenses to the three lens case, we explore the parameter space of circumbinary systems, producing exact magnification maps and light curves.

4. DeRose, K., Jiang, K., Li, J., Julius, M., Zhuo, L., Wenner, S., & Bali, S. (2023). Producing slow light in warm alkali vapor using electromagnetically induced transparency. *American Journal of Physics*, 91(3), 193–205. <https://doi.org/10.1119/5.0128967>

**Abstract:** We present undergraduate-friendly instructions on how to produce light pulses propagating through warm Rubidium vapor with speeds less than 400 m/s, i.e., nearly a million times slower than  $c$ . We elucidate the role played by electromagnetically induced transparency (EIT) in producing slow light pulses and discuss how to achieve the required experimental conditions. The optical setup is presented, and details provided for preparation of pump, probe, and reference pulses of the required size, frequency, intensity, temporal width, and polarization purity. EIT-based slow light pulses provide the most widely studied architecture for creating quantum memories. Therefore, the basic concepts presented here are useful for physics and engineering majors who wish to get involved in the development of cutting-edge quantum technologies.

5. Chou, C., Hsaio, S., Feng, J., Lin, T., & Lu, S. (2023). A tabletop experiment for speed of light measurement using a Red Pitaya STEMLab board. *American Journal of Physics*, 91(3), 206–213. <https://doi.org/10.1119/5.0099720>

**Abstract:** The speed of light is an important fundamental constant in physics, and so determining its value is a common undergraduate laboratory experiment. Methods to measure the light speed can help students practice their experimental skills and become familiar with the concepts of modern precision measurement techniques. In this paper, we demonstrate that a tabletop optical setup, comprised of an affordable Red Pitaya STEMLab board and a low-cost laser diode module, can be used to accurately determine the speed of light by measuring the frequency response of the phase shift between intensity-modulated light beams reflected by two end mirrors separated by 50 cm. By using the STEMLab built-in Bode analyzer to automatically scan the modulation frequency over the range from 10 to 40 MHz, the frequency response of phase is measured and recorded. These phase shift data are then used to calculate the speed of light with an uncertainty of less than 0.5%. With the help of the Red Pitaya board, the number of required electronic instruments for our setup is reduced. All of the required components are commercially available, and no electronic construction work is necessary so that teachers and students can implement the experiment in a plug-and-play manner.

6. Brown, J. D. (2023). Singular Lagrangians and the Dirac–Bergmann algorithm in classical mechanics. *American Journal of Physics*, 91(3), 214–224. <https://doi.org/10.1119/5.0107540>

**Abstract:** Textbook treatments of classical mechanics typically assume that the Lagrangian is nonsingular; that is, the matrix of second derivatives of the Lagrangian with respect to the velocities is invertible. This assumption ensures that (i) Lagrange's equations can be solved for the accelerations as functions of coordinates and velocities, and (ii) the definitions of the conjugate momenta can be inverted to solve for the velocities as functions of coordinates and momenta. This assumption, however, is unnecessarily restrictive—there are interesting classical dynamical systems with singular Lagrangians. The algorithm for analyzing such systems was developed by Dirac and Bergmann in the 1950s. After a brief review of the Dirac–Bergmann algorithm, several examples are presented using familiar components: point masses connected by massless springs, rods, cords, and pulleys.

7. Gomez, S., Hoyos, J. H., & Valdivia, J. A. (2023). Particle-in-cell method for plasmas in the one-dimensional electrostatic limit. *American Journal of Physics*, 91(3), 225–234. <https://doi.org/10.1119/5.0135515>

**Abstract:** We discuss the particle-in-cell (PIC) method, which is one of the most widely used approaches for the kinetic description of plasmas. The positions and velocities of the charged particles take continuous values in phase space, and spatial macroscopic quantities, such as the charge density and self-generated electric fields, are calculated at discrete spatial points of a grid. We discuss the computer implementation of the PIC method for one-dimensional plasmas in the electrostatic regime and discuss a desktop application (PlasmAPP), which includes the implementation of different numerical and interpolation methods and diagnostics in a graphical user interface. To illustrate its functionality, the electron-electron two-

stream instability is discussed. Readers can use PlasmAPP to explore advanced numerical methods and simulate different phenomena of interest.

8. Mayr, N., Haring, M., & Wallek, T. (2023). Continuous fractional component Gibbs ensemble Monte Carlo. *American Journal of Physics*, 91(3), 235–246. <https://doi.org/10.1119/5.0135841>

**Abstract:** A continuous fractional component (CFC) approach increases the probability of particle swaps in the context of vapor-liquid equilibrium simulations using the Gibbs ensemble Monte Carlo algorithm. Two variants of the CFC approach are compared for simulations of pure Lennard-Jones (LJ) fluids and binary LJ mixtures as examples. The details of an exemplary CFC implementation are presented. Recommendations are provided to reduce the effort required for the suggested problems.

## JOURNAL OF COUNSELING PSYCHOLOGY

1. Garrison, Y. L., Jiao, T., Vaz, S., Shah, S., Reeves, D., Murphy, S., Lin, C. E., & Pak, S. (2022). A qualitative study of women of color group psychotherapists: The wellspring of collective healing. *Journal of Counseling Psychology*, 70(1), 1–15. <https://doi.org/10.1037/cou0000643>

**Abstract:** Understanding the psychological health of women of color (WOC) in a racialized and gendered society requires accessing, validating, and processing the lived experiences and emotions that stem from interlocking systems of oppression. Despite the importance of responding to the psychological health needs of this population, the group therapy literature on how to design and facilitate group therapy for women of color remains limited. For this reason, the present research aims to identify group therapy-oriented experiences based on data provided by ten women of color group psychotherapists practicing in the United States. Findings from the consensual qualitative research (Hill, 2012) revealed six domains: (a) group development, (b) personal and professional significance, (c) group facilitation behaviors, (d) perceived healing factors, (e) challenges, and (f) advice. Suggestions for future research and recommendations for women of color groups positioned as a wellspring of empowerment, liberation, and psychological health are also discussed.

**Keywords:** group therapy; women of color; racial minority; group leadership; liberation psychology

2. Matsuno, E., Hashtpari, H., Domínguez, S. D., Maroney, M. R., Gonzalez, K. A., & Knutson, D. (2022). “There’s no real roadmap that I know of”: Experiences of transgender and nonbinary graduate students in counseling psychology programs. *Journal of Counseling Psychology*. <https://doi.org/10.1037/cou0000647>

**Abstract:** Minimal research has examined the experiences of transgender and nonbinary (TNB) people in graduate school with no studies to date examining the experiences of TNB students in psychology graduate programs. The purpose of this study was to utilize a critical-ideological paradigm to identify recruitment, retention, and attrition factors for TNB people in counseling psychology (CP) programs with the aim of providing specific recommendations to CP programs. Individual interviews (between 35 and 70 min) were conducted with a sample of 16 TNB graduate students, aged 23–37-years old ( $M = 26.9$ ,  $SD = 3.84$ ), in masters ( $n = 6$ ) and doctoral ( $n = 10$ ) CP programs. Participants were nonbinary ( $n = 13$ ) and trans men ( $n = 3$ ), the majority were White ( $n = 10$ ), and all were sexual minorities. Participants were recruited online through email listservs and on social media posts on Facebook and Twitter. Reflexive thematic analysis revealed themes related to challenges experienced in CP programs (systemic/structural challenges, interpersonal challenges, individual/internal challenges) and strengths of or recommendations for CP programs (transaffirming resources/policies, supporting TNB competence and expertise, being a TNB accomplice). Several unique subthemes emerged across the seven themes. Findings may be applied by CP programs to more effectively recruit and retain TNB people, and collectively contribute to an increasing number of TNB people within this field.

**Keywords:** transgender, nonbinary, reflexive thematic analysis, graduate students, higher education.

3. Moscovitz, A. M., Bedi, R. P., & Outadi, A. (2022). Examination of perceived religion in Muslim women's access to counseling and psychotherapy services: An audit study. *Journal of Counseling Psychology*. <https://doi.org/10.1037/cou0000644>

**Abstract:** Across the United States and Canada, the marginalization of Muslims has contributed to many Muslim women having mental health difficulties, making it essential that services are available and accessible. An email correspondence audit design research study was used to investigate whether mental health practitioners demonstrate implicit bias in the form of aversive prejudice against Muslim women during a request for counseling/psychotherapy services. A total of 450 counselors or psychologists participated. Practitioners received an email from either a Muslim or non-Muslim woman, signified by name and a religious quotation, requesting an appointment. Based on the Aversive Racism Framework, it was hypothesized that practitioners would (a) respond more frequently to the Muslim woman and (b) respond faster to the Muslim woman but (c) offer services to the Muslim woman at a lesser or similar frequency. All three hypotheses were supported. Findings suggest that aversive prejudice appears active at the forefront of counseling and psychotherapy services for Muslim women, whereby counselors and psychologists are unknowingly acting in a biased manner toward a request for an appointment from a Muslim woman. Suggestions for overcoming this bias are provided.

4. Moturu, B. P., & Lent, R. W. (2023). Self-assertive efficacy and workplace advocacy behavior: A social cognitive analysis. *Journal of Counseling Psychology*, 70(1), 41–51. <https://doi.org/10.1037/cou0000645>

**Abstract:** One important way in which people assert their agency in the workplace is by engaging in self-advocacy. We used the social cognitive model of career self-management (CSM; Lent & Brown, 2013) to examine hypothesized predictors and outcomes of workers' engagement in self-advocacy. Participants were 511 full-time employees who completed an online survey of self-assertive efficacy involving advocacy behavior, proactive personality, perceived organizational support, self-advocacy behaviors (voice, career initiative, job change negotiation), and three career success criteria (career satisfaction, organizational rewards growth, and hierarchical status at work). Splitting the sample into two parts, we first examined the psychometric properties of a new measure of self-assertive efficacy in relation to workplace advocacy behaviors (SAE-W;  $n = 200$ ). In the second phase, we tested a set of measurement models to confirm the factor structure of the new measure ( $n = 311$ ). Results suggested that the SAE-W measure can be viewed as largely unidimensional. Path analyses of the CSM model, including the new self-efficacy measure, offered good fit to the data across gender, racial/ethnic groups, and educational level. We discuss the implications of the findings for future research on self-advocacy behaviors in the workplace from a social cognitive perspective.

**Keywords:** self-advocacy, assertive career behaviours, social cognitive career theory, career self-management

5. Abbott, D. M., Vargas, J. E., & Santiago, H. J. (2023). Sexuality training in counseling psychology: A mixed-methods study of student perspectives. *Journal of Counseling Psychology*, 70(1), 52–66. <https://doi.org/10.1037/cou0000641>

**Abstract:** Counselling psychologists are a cogent fit to lead the movement toward a sex-positive professional psychology (Burnes et al., 2017a). Though centralizing training in human sexuality (HS; Mollen & Abbott, 2021) and sexual and reproductive health (Grzanka & Frantell, 2017) is congruent with counseling psychologists' values, training programs rarely require or integrate comprehensive sexuality training for their students (Mollen et al., 2020). We employed a critical mixed-methods design in the interest of centering the missing voices of doctoral-level graduate students in counseling psychology in the discussion of the importance of human sexuality competence for counseling psychologists. Using focus groups to ascertain students' perspectives on their human sexuality training (HST) in counseling psychology, responses yielded five themes: (a) HST is integral to counseling psychology training, (b) few opportunities to gain human sexuality competence, (c) inconsistent training and self-directed learning, (d) varying levels of human sexuality comfort and competence, and (e) desire for integration of HST. Survey responses suggested students were trained on the vast majority of human sexuality topics at low levels, consistent with prior studies surveying training directors in counseling psychology and at internship training sites (Abbott et al., 2021; Mollen et al., 2020). Taken together, results suggested students see HST as aligned with the social justice emphasis in counseling psychology but found their current training was inconsistent, incidental rather than intentional, and lacked depth. Recommendations, contextualized within counseling psychology values, are offered to increase opportunities for and strengthen HST in counseling psychology training programs.

**Keywords:** human sexuality, counselling psychology training, sex positivity

6. An, M., Kivlighan, D. M., & Hill, C. E. (2022). Working alliance after transferring from one therapist to another in a training clinic: Influence of therapist attachment style. *Journal of Counseling Psychology*. <https://doi.org/10.1037/cou0000642>

**Abstract:** This study investigated how client working alliance changed after transferring from one therapist to another: (a) When pre- and post-transfer therapists' attachment anxiety/avoidance were congruently higher or lower and (b) when the pretransfer therapists' attachment anxiety/avoidance were more or less discrepant from the posttransfer therapists. A Tau-U analysis and a multilevel polynomial regression and response surface analysis were used to analyze longitudinal data about 23 transferred clients in open-ended psychodynamic psychotherapy with doctoral-level therapist trainees ( $n = 29$ ). When first and second therapists' attachment anxiety/avoidance levels were congruent, the higher the two therapists' attachment anxiety and avoidance levels were, the greater was the decrement in clients' ratings of working alliance after transfers. When first and second therapists' attachment anxiety/avoidance levels were discrepant from each other, the more the first and second therapists' attachment were different from each other in terms of anxiety, the greater decrement in clients' ratings of working alliance there was after transfers. Meanwhile, the more the two therapists' attachment avoidance levels were different

from each other, the less decrement in clients' ratings of working alliance there was after transfers. Therefore, the attachment orientations of the pre- and post-transfer therapists combined to influence client working alliance after transfers. Limitations and implications of the present research are discussed.

**Keywords:** therapist attachment, client working alliance, transfers, psychodynamic therapy, psychotherapy process and outcome

7. Goldberg, S. B., Babins-Wagner, R., Imel, Z. E., Caperton, D. D., Weitzman, L. M., & Wampold, B. E. (2022). Threat alert: The effect of outliers on the alliance–outcome correlation. *Journal of Counseling Psychology*. <https://doi.org/10.1037/cou0000638>

**Abstract:** Meta-analyses have established the alliance as the most robust predictor of outcome in psychotherapy. A growing number of studies have evaluated potential threats to the conclusion that alliance is a *causal* factor in psychotherapy. One potential threat that has not been systematically examined is the possibility that the alliance–outcome association is driven by low alliance outliers. We examined the influence of removing low alliance outliers on the alliance–outcome association using data drawn from two large-scale, naturalistic psychotherapy data sets ( $Ns = 1,052; 11,029$ ). These data sets differed in setting (university counseling center, community mental health center), country (United States and Canada), alliance measure (four-item Working Alliance Inventory Short Form Revised, 10-item Session Rating Scale), and outcome measure (Counseling Center Assessment of Psychological Symptoms–34, Outcome Questionnaire–45). We examined the impact of treating outliers in five different ways: retaining them, removing values three or two standard deviations from the mean, and winsorizing values three or two standard deviations from the mean. We also examined the effect of outliers after disaggregating alliance ratings into within-therapist and between-therapist components. The alliance–outcome correlation and the proportion of variance in posttest outcomes explained by alliance when controlling for pretest outcomes were similar regardless of how low alliance outliers were treated (change in  $r \leq .04$ , change in  $R^2 \leq 1\%$ ). Results from the disaggregation were similar. Thus, it appears that the alliance–outcome association is not an artifact of the influence of low alliance outliers.

**Keywords:** therapeutic alliance, psychotherapy process, psychotherapy outcome, outliers.

8. Yu, B. C. L., Chio, F. H. N., Chan, K. K. Y., Mak, W. W. S., Zhang, G., Vogel, D., & Lai, M. H. C. (2023). Associations between public and self-stigma of help-seeking with help-seeking attitudes and intention: A meta-analytic structural equation modeling approach. *Journal of Counseling Psychology*, 70(1), 90–102. <https://doi.org/10.1037/cou0000637>

**Abstract:** The present study examined the association between help-seeking public stigma and help-seeking self-stigma (i.e., internalization of stigma) and the relative association of both types of stigma with help-seeking attitude and intention using a full-information meta-analytic structural equation modeling approach. We also investigated the moderating effect of gender, age, collectivism, and social group in the internalization process. Results from 115 independent samples containing data from 54,793 individuals showed that public stigma of help-seeking was strongly and

positively associated with self-stigma of help-seeking. Moreover, after controlling for the effect of each other, self-stigma, but not public stigma, remained significantly associated with help-seeking attitude and help-seeking intention. Gender, age, collectivism, and social group did not significantly moderate the association between public and self-stigma. The findings highlight that people who perceive more stigma of help-seeking from others tend to have higher levels of self-stigma. Compared with help-seeking public stigma, help-seeking self-stigma might have a larger impact on one's help-seeking attitude and intention. Help-seeking promotion campaigns should be devised to tackle both types of stigma to foster positive help-seeking attitude and intention.

**Keywords:** help-seeking, stigma, attitude, intention, meta-analysis

9. Ohtani, K., Tamura, A., Sakaki, M., Murayama, K., Ishikawa, S.-i., Ishii, R., Nakazato, N., Suzuki, T., & Tanaka, A. (2023). Parental perception matters: Reciprocal relations between adolescents' depressive symptoms and parental perceptions. *Journal of Counseling Psychology*, 70(1), 103–118. <https://doi.org/10.1037/cou0000632>

**Abstract:** A large body of research has shown that parents play a vital role in the development of adolescents' depression. However, previous research has overlooked the effects of a potentially critical factor, namely, parental perceptions, and beliefs about adolescents' depression. The present study examined whether parental perceptions of an adolescent's depressive symptoms predict longitudinal changes in adolescents' symptoms (i.e., the parental perception effect). The longitudinal relationship between adolescents' depressive symptoms and parental perceptions of the adolescents' symptoms was analyzed in three independent groups of parent–adolescent pairs (in total  $N = 1,228$ ). Parental perception and monitoring effects were found in Studies 1B and 2 only in the depressive mood subscale. While a decreased enjoyment subscale showed a perception effect in Study 1A, we obtained null results from other studies. We synthesized the results by applying meta-analytic structural equation modeling to obtain a more robust estimate. The analysis qualified both perception and monitoring effects in both subscales. Our results suggest that when parents believe that their adolescent child is depressed, adolescents are cognitively biased by their parental perceptions over time, resulting in more severe depressive symptoms.

**Keywords:** depressive symptoms, parental perception, self-fulfilling prophecy, adolescents, parenting behaviors.

10. Moradi, B., Brewster, M. E., Grzanka, P. R., & Miller, M. J. (2023). The hidden curriculum of academic writing: Toward demystifying manuscript preparation in counseling psychology. *Journal of Counseling Psychology*, 70(2), 119–132. <https://doi.org/10.1037/cou0000650>

**Abstract:** In this article, we aim to unpack some of the hidden curriculum in publishing successfully in the *Journal of Counseling Psychology* (JCP) and other academic outlets. The many unspoken and implicit considerations behind writing a successful academic article can reinforce epistemic exclusions around class, gender, race, sexuality, and other axes of power that ultimately limit who gets to publish in

academic journals and about what. Thus, we work to articulate the processes behind writing an academic article. Specifically, we offer suggestions for (a) writing compelling, precise, and parsimonious introductions, (b) clearly addressing the goals of the study via an accurate and detailed description of the method, (c) aligning analytic decisions with the research questions or hypotheses and the data parameters at hand, and (d) discussing the *story* of data in the context of prior scholarship, study limitations, and real-world implications. Where applicable, we provide concrete examples of published studies to “unhide” writing processes and to illustrate the invisible narratives and intentions behind key writing practices. We also present a checklist as an easy-to-reference companion to this article to help demystify the writing process. This article aligns with the commitment of JCP’s editorial leadership to play an active role in opening up the scholarly publication process so that the pipeline of manuscripts submitted to and accepted by JCP shapes a more inclusive future for the field.

**Keywords:** research design, scholarly writing, mentorship, publication guidelines, critical science studies

11. Spengler, E. S., Tierney, D., Elledge, L. C., & Grzanka, P. R. (2023). Beyond the individual: Sexual minority help-seeking and the consequences of structural barriers. *Journal of Counseling Psychology*, 70(2), 133–145. <https://doi.org/10.1037/cou0000657>

**Abstract:** Sexual minorities report more psychological distress, unmet mental health needs, and barriers to mental health care compared with heterosexuals, yet little is known about their barriers to seeking out mental health care. The present study reports the factors that influence intentions to seek out mental health care of a national survey of 398 sexual minorities. Structural equation modeling identified structural barriers, such as cost, time, and knowing how to access services, as the strongest predictor of sexual minorities’ help-seeking intentions. Latent moderators indicated sexual minorities’ help-seeking intentions varied depending upon their degree of psychological distress. This revealed a pattern where the most vulnerable participants (i.e., those with high structural barriers and negative help-seeking attitudes) were willing to pursue mental health care only when they were experiencing significant distress. Furthermore, nearly 40% of participants reported unmet mental health needs, and structural barriers were the primary reasons for this deficit. Findings from this study contrast with previous mental health help-seeking research by emphasizing the importance of structural vulnerability, which refers to the external forces that frame and constrain choices, thereby impeding decision-making and limiting life options for those who are in systemically disadvantaged social positions. These findings are discussed in terms of counselling psychology training, practice, social justice advocacy, and future health care research.

**Keywords:** sexual minority, help-seeking, mental health care, health equity, treatment gap.

12. Xu, G., Wang, X., Budge, S. L., & Sun, S. (2023). “We don’t have a template to follow”: Sexual identity development and its facilitative factors among sexual minority men in the context of China. *Journal of Counseling Psychology*, 70(2), 146–158. <https://doi.org/10.1037/cou0000651>

**Abstract:** Extant research on sexual identity development among sexual minority individuals has been predominantly conducted in Western contexts and focused on factors that hinder identity development processes. Using thematic analysis, this qualitative study sought to explore the experiences of sexual identity development among Chinese sexual minority men as well as the facilitative factors in China that positively influence this developmental process. The sample comprised 24 participants who self-identified as Chinese sexual minority men. The analysis yielded five overarching themes: awareness of one's attraction and corresponding reactions, identity exploration, moving toward identity acceptance and commitment, acceptance and support from others, and environmental support. The first three themes described the processes of sexual identity development among Chinese sexual minority men, whereas the latter two themes centered on the related facilitative factors in the context of China. The results highlight the importance of understanding the identity development process within Chinese minority men's unique sociocultural contexts.

**Keywords:** sexual minority, sexual identity, China, qualitative, thematic analysis.

13. Wang, L.-f., Kivlighan, D. M., Jr., Wei, M., Kivlighan, D. M. III, Hung, Y.-L., & Koay, E. Y. Y. (2023). Changes in group counseling engagement and conflict and growth in emotional cultivation for children and adolescents. *Journal of Counseling Psychology*, 70(2), 159–171. <https://doi.org/10.1037/cou0000648>

**Abstract:** Group climate is an important factor in group counseling and psychotherapy process and outcome research. The current investigation examined group climate changes (from early to late sessions) at the within-group (i.e., group members) and between-group (i.e., group-as-a-whole) levels in predicting changes in group members' emotional cultivation in group counseling. A total of 236 Taiwanese children and adolescents across 41 groups participated in this study. Members' ratings of group climate (i.e., engagement and conflict) were partitioned into within-group and between-group components, and polynomial regression with response surface analysis was used to examine the association between changes in group engagement and conflict (at the member- and group-level) from early to late group sessions on changes in emotional cultivation. Results supported the theoretical hypothesis that when a group-as-a-whole reported increasing engagement from early to late group sessions, relative to other groups (i.e., between-group effect), members of that group experienced greater growth in emotional cultivation. Results also indicated that group members reported greater growth in emotional cultivation when there was consistent and high engagement or consistent and low conflict from early to late group sessions.

**Keywords:** group climate, emotional cultivation or regulation, group counselling and psychotherapy, response surface analysis, children and adolescents.

14. Li, X., Zhao, H., Wu, M., Li, F., & Hill, C. E. (2023). The development of a Brief Working Alliance Inventory for clients and therapists using multilevel factor analysis and item response theory in the United States and China. *Journal of Counseling Psychology*, 70(2), 172–188. <https://doi.org/10.1037/cou0000655>

**Abstract:** This study aimed to investigate the multilevel factor structure of the therapist and client versions of the 12-item Working Alliance Inventory–Short Revised (WAI; Hatcher & Gillaspay, 2006) in the United States and China, and to

create a three-item brief version (WAI-B3) using multilevel factor analysis (M-FA) and multilevel item response theory (M-IRT). We gathered eight data sets from two samples each in United States and China with a total of 21,623 sessions from 376 therapists and 2,455 clients. M-FA results with the first four data sets (two American and two Chinese) suggested that the 12-item WAI across therapist and client versions, and in both United States and China showed a dominant general WA factor with three specific subgroup factors corresponding to the Goal, Task, and Bond items. We then constructed a three-item WAI-B3 by selecting items 11, 10, and 9 through M-IRT, as the best representative of Goal, Task, and Bond subscales, respectively, for both the therapist and client versions in United States and China. With the other four data sets (two American, two Chinese) to test the WAI-B3, we found adequate multilevel reliability, structural validity, and convergent validity with the original 12-item WAI scores. Multilevel measurement invariance tests provided tentative and mixed support for the equivalence of WAI-B3 between the American and Chinese data sets and between therapist and client versions. We recommend that the WAI-B3 be used in routine clinical practice to track therapy process, and that the WAI-B3 be tested with other client and therapist populations and cultures.

**Keywords:** working alliance inventory, cross-cultural comparison, multilevel factor analysis, multilevel item response theory, measurement invariance.

15. Zhao, H., Li, X., Chen, S., & Li, F. (2023). Creating a brief form of the Supervisory Working Alliance Inventory in the Chinese cultural context using multilevel factor analyses. *Journal of Counseling Psychology*, 70(2), 189–202. <https://doi.org/10.1037/cou0000654>

**Abstract:** The aim of this study was to examine the multilevel factor structure of the Supervisory Working Alliance Inventory (SWAI; Efstation et al., 1990) and shorten it for routine clinical use in the Chinese cultural context. Participants were 203 (Sample 1) and 97 (Sample 2) beginning counseling trainees from a master's level training program in China. They were given the SWAI after every supervision session, and a subset of Sample 1 trainees also completed measures of their counseling self-efficacy before every client session. With Sample 1, multilevel exploratory factor analysis (M-EFA) showed that for the original 19-item version of SWAI, two factors emerged on the within-trainee level (Rapport and Client Focus) as proposed in Efstation et al. (1990), whereas only one General Alliance factor was identifiable on the between-trainee level. After removing poorly or double-loaded items, a six-item brief version of SWAI (SWAI-Brief) was obtained. Using Sample 2, multilevel confirmatory factor analysis and multilevel bifactor models supported the factor structure found in M-EFA with Sample 1. Empirical evidence also supported the reliability of the SWAI-Brief, as well as its criterion-related concurrent and predictive validity given its significant associations with trainee's counseling self-efficacy at the same week and in the subsequent week. Results suggested that the six-item SWAI-Brief could be a reliable and valid measure for assessing supervisory working alliance in the Chinese cultural context and may be used to continuously track clinical supervision processes.

**Keywords:** supervisory working alliance, multilevel factor structure, longitudinal data, Chinese beginning counselling trainees.

16. Suh, H. N., Pigott, T., Rice, K. G., Davis, D. E., & Andrade, A. C. (2023). Meta-analysis of the relationship between self-critical perfectionism and depressive symptoms: Comparison between Asian American and Asian international college students. *Journal of Counseling Psychology*, 70(2), 203–211. <https://doi.org/10.1037/cou0000653>

**Abstract:** A body of research has been dedicated to demonstrating the relationship of perfectionism with a range of mental health indicators. Self-critical perfectionism, a component of perfectionism, has been framed primarily in a negative light within the mental health context. Given that research informs educational and clinical practices, it is important to explore the degree to which such findings generalize across cultures and subcultures. The current meta-analytic research systemically collated studies conducted with Asian college students with a particular attention to exploring whether orientation to Asian culture and cultural values correspondingly moderates the relationship between self-critical perfectionism and depressive symptoms. The degree of upholding Asian cultural values was represented by group identity (i.e., Asian American and Asian international). Eleven studies ( $N = 3,239$ ) were identified through the literature search. Findings from the random-effects meta-analysis indicated a significant relationship between self-critical perfectionism and depressive symptoms in the overall sample. The group identity significantly moderated the relationship; among Asian international college students, self-critical perfectionism appeared to have a less harmful effect on mental distress compared to Asian American college students. Self-cultivation—one of the salient and virtuous Asian cultural values that aligns with self-critical perfectionism—may have motivated continuous striving for self-improvement to fulfill the honorable duty for their family for Asian international students. Additional findings and implications of the study are further discussed.

**Keywords:** self-critical perfectionism, depressive symptoms, Asian cultural values, Asian international, Asian American

17. Ratner, K., Burrow, A. L., Mendle, J., & Thoemmes, F. (2023). Derailment and depression in college: Tests of 3-year predictive capacity and moderation by self-reflection, brooding, perfectionism, and cognitive flexibility. *Journal of Counseling Psychology*, 70(2), 212–222. <https://doi.org/10.1037/cou0000649>

**Abstract:** While rich with opportunities for self-exploration, the transition to and through college is stressful, often associated with the onset or exacerbation of mental illness. Attending to these characteristics, this preregistered study asked whether derailment—or difficulties reconciling perceived identity change—in freshman year predicts senior depressive symptoms, and how individual risks for depression relate to this association. Derailment and depressive symptoms evidenced significant 3-year stability, and these constructs had positive cross-sectional associations in both freshman and senior year. Freshman derailment failed to predict senior depressive symptoms for the average student, but individual differences in self-reflection moderated the association: freshman derailment positively predicted senior depression among those lowest in self-reflection. Together, this study suggests derailment and depressive symptoms are consistently related at critical points of transition, and some individual differences in cognition may help predict their long-term association. While useful for understanding nuances between derailment and depression, these

findings also inform ways of attending to and supporting college students through periods of transition.

**Keywords:** derailment, depression, college, identity, individual differences.

18. Yang, X., Huang, J., Wu, X., & Zhou, X. (2023). Internalizing and externalizing problems in adolescents following an earthquake: Codevelopment and temporal association. *Journal of Counseling Psychology*, 70(2), 223–233. <https://doi.org/10.1037/cou0000656>

**Abstract:** Chinese adolescents who experience potentially traumatic events may develop posttraumatic internalizing and externalizing problems. However, it remains controversial whether interventions should focus first on internalizing or externalizing problems (or simultaneously on both). Previous studies have attempted to elucidate the developmental trajectories of posttraumatic internalizing and externalizing problems, temporal associations between them, and the between-person effects on this association to identify appropriate primary interventions. However, these studies overlooked the potential codevelopment of internalizing and externalizing problems along with the within-person effects on this association. To address these gaps, this study examined the codevelopment of and within-person temporal association between internalizing and externalizing problems. Participants were 391 Chinese adolescents who completed self-report questionnaires at 1, 1.5, 2, and 2.5 years after the 2008 Wenchuan earthquake. Parallel latent growth curve modeling and random intercept cross-lagged panel modeling were used to test the hypotheses. The results showed that both internalizing and externalizing problems were stable over time following the earthquake. Moreover, internalizing problems positively predicted externalizing problems at the within-person level and showed a positive between-person relationship with externalizing problems. These findings suggest that internalizing and externalizing problems may codevelop, and internalizing problems are risk factors for externalizing problems in adolescents following trauma.

**Keywords:** trauma, adolescents, internalizing problems, externalizing problems, temporal association

## Biochemistry and Molecular Biology Education

1. Bolduc, K., McCollough, S. M., & Stoeckman, A. K. (2022). From classroom to clinic: Biochemistry lab for pre-health majors. *Biochemistry and Molecular Biology Education*, 51(1), 10–14. <https://doi.org/10.1002/bmb.21675>

**Abstract:** Undergraduate laboratory courses are vital for both enhancing student learning and preparing students for their future careers. Despite their importance, laboratory courses are often met with a lack of enthusiasm from students. For pre-health students specifically, laboratory courses are commonly seen as part of a checklist that needs to be completed in order to achieve future education or a career, instead of seeing the information that is taught in laboratories as essential preparation. A one-semester biochemistry laboratory module was designed to demonstrate the real-life applications of experimental techniques. This laboratory module introduced students to common clinical measurements and included learning metabolite analysis through hands-on experiments, connections to simulated patient visits, generation of a research question, and implementation of a student-designed independent experiment. Surveys indicate that this approach was helpful in creating a greater understanding of the applicability of undergraduate laboratory concepts appealing specifically to pre-health students. Additionally, students found this module to provide a variety of gained benefits, knowledge, and confidence in performing scientific techniques. The outcomes of this laboratory module indicate its success and potential to be used in curricula as an effective way to engage pre-health students in an undergraduate biochemistry laboratory.

**Keywords:** clinical laboratories, pre-health majors, undergraduate biochemistry.

2. Haeri, M. (2022). Implementation of a method for a clinical biochemistry lesson plan based on the flowchart. *Biochemistry and Molecular Biology Education*, 51(1), 15–1. <https://doi.org/10.1002/bmb.21678>

**Abstract:** Biochemistry is believed to be a difficult subject to understand for most life science and medical students. This article explains an experience with a flowchart-based teaching approach that is applicable to different kinds of biochemistry courses (basic, medical, and clinical) for undergraduate and postgraduate students. After preparing the flowcharts, they were given to the students at the beginning of the semester, and the flowchart-based teaching was performed for a whole semester. At the end of the semester, they were asked about the effectiveness and facilitation of learning using flowchart-based teaching. This survey was performed for several semesters. Approximately, 95% stated that it facilitates learning and understanding.

**Keywords:** biochemistry/clinical biochemistry, flowchart, teaching aids, teaching facility, teaching improvement

3. Chen, H., Teng, T., Chen, H., Liu, X., Liu, Z., Li, X., Jie, W., Wu, X., Cao, L., Hongyan, W., Zhu, D., & Zhou, X. (2022). Motivation, self-efficacy, perception, curiosity, and barriers toward medical research among undergraduates in China. *Biochemistry and Molecular Biology Education*. <https://doi.org/10.1002/bmb.21684>

**Abstract:** Medical research is important to scientific progress and medical education. Institutions worldwide have sought to increase student involvement in research such as clinician–scientists training programs, while little is known about how medical undergraduates perceive research. A cross-sectional study was conducted in Chongqing Medical University, Chongqing, China, with first–fourth year undergraduates. An online, anonymous, and self-rating 5-point Likert questionnaire was conducted to investigate medical undergraduates' demographic characteristics and assess motivation, self-efficacy, perception, curiosity, and barriers regarding medical research. Content validity was checked with experts and face validity was checked for clarity and understanding of the questionnaire. The Cronbach's alpha coefficient of the questions ranged from 0.813 to 0.879. A total of 3273 medical undergraduates were surveyed, and 86.62% (2835) participants (male 962, female 1873) were identified as effective. Males scored higher than females on self-efficacy ( $p < 0.001$ ), perception ( $p = 0.017$ ), and curiosity ( $p < 0.001$ ), and lower on barriers ( $p < 0.001$ ). The second year students are at the peak of their perception ( $p = 0.006$ ) and lowest barrier scores ( $p = 0.003$ ). Students with scientific research experience scored higher in motivation ( $p = 0.002$ ), self-efficacy ( $p < 0.001$ ), perception ( $p < 0.001$ ), and curiosity ( $p < 0.001$ ). Lack of proper mentoring opportunity (86.2%) and knowledge (84.5%) were the main barriers in conducting research. Even though they have a positive perspective, only a few undergraduates enrolled in research. Medical universities should encourage faculties to supervise and guide undergraduates' projects, and provide feasible solutions for students to learn scientific knowledge and skills. It is vital to build a research-oriented environment and academic atmosphere.

**Keywords:** medical and research, medical undergraduates, undergraduate medical research.

4. Onyeaka, H., Passaretti, P., Miri, T., Hart, A., Favero, C., Anumudu, C., & Robbins, P. (2022). Pre-lab video demonstrations to enhance students' laboratory experience in a first-year chemical engineering class. *Biochemistry and Molecular Biology Education*, 51(1), 29–38. <https://doi.org/10.1002/bmb.21688>

**Abstract:** The limited capabilities of teaching laboratories, combined with an increasing number of students enrolled in university, require constant augmentation of instructional approaches. By enhancing laboratory demonstrations with digital technology, these structural issues can be addressed while at the same time enhancing student understanding and learning. Our case study focuses on the fermentation lab part of the Reaction Equilibria and Thermodynamics (RET) module, a first-year chemical engineering course at the University of Birmingham. Video demonstrations were used to introduce students to the laboratory set-ups and walk them through each step and technique. The video demonstrations allowed the students to attend the in-person lab sessions having established knowledge and understanding of the processes involved and the outcomes desired, which decreased the burden on the facilities and the staff. A knowledge-based quiz and a student survey conducted at the end of the module showed that the pre-lab videos encouraged more active participation in the laboratory sessions and reinforced learning. Approximately 70% of the students polled in the first survey conducted within this project felt more confident going into the laboratory sessions after watching the pre-lab videos and attempting the knowledge quiz, while 92% of the students polled in the second survey judged the

pre-lab video sessions as beneficial to them. Overall, the teaching method has the potential to improve student participation and access, boost confidence and learning, and provided a more structured and flexible approach to laboratory learning outcomes.

**Keywords:** blended teaching and learning, chemical engineering, student assessment, virtual laboratory, visual communication

5. Howard, A. J. (2022). A recommendation on the teaching of Michaelis–Menten kinetics in biochemistry courses. *Biochemistry and Molecular Biology Education*, 51(1), 39–43. <https://doi.org/10.1002/bmb.21689>

**Abstract:** Most textbooks and lecturers present Michaelis–Menten kinetics using the equation  $v = V_{\max}[S]/(K_m + [S])$ . There are advantages to presenting this relationship in a slightly different form, namely  $v = V_{\max}/\{1 + (K_m/[S])\}$ . We articulate advantages for single-substrate reactions and extend the formalism to include the three classes of bi-substrate reactions.

**Keywords:** kinetics, Michaelis-Menten, pedagogy.

6. Gough, P., Bown, O., Campbell, C. R., Poronnik, P., & Ross, P. M. (2022). Student responses to creative coding in biomedical science education. *Biochemistry and Molecular Biology Education*, 51(1), 44–56. <https://doi.org/10.1002/bmb.21692>

**Abstract:** Biomedical science students need to learn to code. Graduates face a future where they will be better prepared for research higher degrees and the workforce if they can code. Embedding coding in a biomedical curriculum comes with challenges. First, biomedical science students often experience anxiety learning quantitative and computational thinking skills and second biomedical faculty often lack expertise required to teach coding. In this study, we describe a creative coding approach to building coding skills in students using the packages of Processing and Arduino. Biomedical science students were taught by an interdisciplinary faculty team from Medicine and Health, Science and Architecture, Design and Planning. We describe quantitative and qualitative responses of students to this approach. Cluster analysis revealed a diversity of student responses, with a large majority of students who supported creative coding in the curriculum, a smaller but vocal cluster, who did not support creative coding because either the exercises were not sufficiently challenging or were too challenging and believed coding should not be in a Biomedical Science curriculum. We describe how two creative coding platforms, Processing and Arduino, embedded and used to visualize human physiological data, and provide responses to students, including those minority of students, who are opposed to coding in the curriculum This study found a variety of students responses in a final year capstone course of an undergraduate Biomedical Science degree where future pathways for students are either in research higher degrees or to the workforce with a future which will be increasingly data driven.

**Keywords:** Arduino, biomedical science education, creative code, data visualization, processing.

7. Golden, A. (2022). Teaching graduate research skills in genomics via an integrated ‘flipped’ journal club program. *Biochemistry and Molecular Biology Education*, 51(1), 57–64. <https://doi.org/10.1002/bmb.21694>

**Abstract:** Journal clubs are well regarded as a highly effective means of engaging graduate students with the contemporary research literature, where individual students prepare and deliver presentations on selected research articles to their peers, followed by a group discussion. Regular journal clubs have the advantage of enhancing student scientific reading, assessment and communication skills as well as developing a better understanding of the field. We developed a flipped journal club program as part of the one semester module ‘Genomics Research Methods’ with the goal of enhancing—and quantifying—individual student ability to engage with the genomics scientific literature. This involves all students and faculty reviewing a given manuscript, with the former submitting research relevant questions they would wish to ask the presenting student at the journal club, and the latter grading them. These questions are then ranked based on their median grade, and subsequently discussed in class. This cycle repeats weekly until all students have presented. Our analysis of question grade data over three consecutive years demonstrated clear improvements in student performance for all students between the start and end of the module. While no difference in performance was noted based on gender over the full semester, improvement in performance was significantly evident for the female cohort between the start and end of the module. Our results are consistent with module survey feedback of overall reported enhanced research self-efficacy. This demonstrates that this flipped journal club implementation is a highly effective means of both assessing *and improving* individual student learning in genomics research ability. The involvement of the teaching faculty furthermore offers a means to foster a dynamic research community for all participants involved. This methodology is easily transferable to other bioscience graduate/undergraduate programs seeking to effectively teach essential research ability skills and enhance student self-efficacy.

**Keywords:** genomics, graduate curriculum, journal club, research skills

8. Plasencia, J. (2022). Use of practice tests with immediate feedback in an undergraduate molecular biology course. *Biochemistry and Molecular Biology Education*, 51(1), 65–73. <https://doi.org/10.1002/bmb.21695>

**Abstract:** Multiple studies have shown that testing contributes to learning at all educational levels. In this observational classroom study, we report the use of a learning tool developed for a Genetics and Molecular Biology course at the college level. An interactive set of practice exams that included 136 multiple choice questions (MCQ) or matching queries was developed in the open-source Moodle platform. All MCQ questions contained four answer choices and configured for immediate feedback upon answering. Feedback consisted of providing the right answer and a short explanation of the learning objective examined. The interactive material was tested and refined for several semesters. Usefulness of this tool was assessed in two distinct settings: (1) during a face-to-face semester (Fall 2019) by comparing the grades in a final departmental exam between students who used the tool and those who did not, and (2) during an online semester (Fall 2020) by analyzing the grades in the first and last attempts on study sessions and students' performance in monthly exams. We found that when solving practice tests, students obtained a significantly

higher scores in the last attempt compared with their first attempt, and that students who used the material performed better than those who did not. In all cases, answering the practice exams was optional, but students made full use of them preferentially during the online semester. This classroom research exemplifies the documented effectiveness of practice tests enhanced with feedback in biological sciences education through an open-source learning platform.

**Keywords:** molecular, biology, retrieval practice, test-enhanced learning, undergraduate education

9. Plasencia, J. (2022a). An online course on applied biochemistry and molecular biology through case-based learning. *Biochemistry and Molecular Biology Education*, 51(1), 74–76. <https://doi.org/10.1002/bmb.21679>

**Abstract:** An undergraduate online course on Applied Biochemistry and Molecular Biology was developed through different formats of case study that included lecture, class discussion, small-groups discussion, and individual work. Cases covering health, biotechnology, agriculture, and other issues were developed or adapted from the literature to reach the desired learning goals. Multiple web resources were employed for information integration that were presented and discussed in the synchronous sessions and assignments. Formative and summative assessment was achieved through multiple-choice questionnaires, exams, and homework assignments.

**Keywords:** active learning, distance learning, molecular biology.

10. Yap, M. K. K. (2022). A digital module-based experiential learning in protein biochemistry during the COVID -19 pandemic paradigm. *Biochemistry and Molecular Biology Education*, 51(1), 77–80. <https://doi.org/10.1002/bmb.21680>

**Abstract:** Experiential learning is compromised in meeting the educational demands of our students during the challenging time of the COVID-19 pandemic. A more inclusive, flexible, and objective-oriented experiential learning environment is required. In this context, module-based experiential learning that is executable on a digital platform was designed. The learning module focused on protein biochemistry, contained a combination of asynchronous and synchronous activities categorized into ‘Knowledge Hub’ and ‘Lab-based Movie’, across 5 weeks. Digital and module-based experiential learning provides equitable, inclusive, and flexible access to students at remote locations. Furthermore, it is an objective-oriented and highly organized experiential learning framework that encourages students to engage and participate more in the learning process.

**Keywords:** active learning, laboratory exercises, learning and curriculum design, teaching and learning techniques methods and approaches, using simulation and internet resources for teaching, web-based learning.

11. Tamilmani, K., Anithasri, A., Gunavathi, G., & Premkumar, K. S. (2022). Comparison of academic performance of medical undergraduate students between routine class room teaching and online assisted teaching in biochemistry during COVID pandemic. *Biochemistry and Molecular Biology Education*. <https://doi.org/10.1002/bmb.21681>

**Abstract:** The new curriculum of competency based medical education (CBME) implemented for phase 1 medical undergraduates could not go on to completion due to the sudden outbreak of the COVID-19 pandemic. The educational institutions therefore resorted to online teaching modalities over conventional class room teachings. Hence this study aimed to compare the academic performance of students between routine classroom teaching and online assisted teaching with assignments. 94 phase 1 MBBS students admitted in the year 2019–2020 was divided into low (<50%), medium (51%–70%) and high performers (71%–100%) based on the average marks in the initial formative assessments. Academic performance of students in three types of teaching modalities namely classroom teaching (CRT), classroom teaching with assignment (CRA), and online assisted teaching (OAT) were compared using ANOVA. Wilcoxon signed ranks test was used to find the difference in marks between CRT and CRA which was calculated as gain 1 and that between OAT and CRT is gain 2. Out of 94 students, 19 were low performers, 53 were medium performers and 22 were high performers when grouped at baseline. All these groups performed significantly well with OAT compared to CRT and CRA. The overall performance of girls was found to be significantly higher. There was no significant difference between Gain 1 and Gain 2. All group of students scored high in assessments following online teaching compared to conventional classroom teaching. The gain of online teaching did not outweigh the conventional teaching methods implying that face to face lectures is still an effective teaching modality.

**Keywords:** assessment, assignments, classroom teaching, gain, online assisted teaching

12. Nunes, K. A., Laliberté, N., & Rawle, F. (2022). The case for flexibility in online science courses: Strategies and caveats. *Biochemistry and Molecular Biology Education*. <https://doi.org/10.1002/bmb.21690>

**Abstract:** The COVID-19 pandemic created an unpredictable and stressful situation for both students and instructors. With current instruction largely occurring in an online environment, we propose that increased flexibility in course structure will best support student learning. Flexible course structure offers a trauma-aware approach to teaching, is in line with the Universal Design for Learning, and increases student motivation and meaningful learning. It can also provide more authentic experiences akin to science-based careers. We provide several specific suggestions for incorporating flexibility in one's class, as well as outline considerations and caveats. Our hope is that flexibility necessitated by the COVID-19 pandemic will continue to inspire change in future course design and educational paradigms.

**Keywords:** flexible course design, online learning, trauma-informed teaching, Universal Design for Learning.

13. Ameri, H., Mahami-Oskouei, M., Sharafi, S., Saadatjoo, S., Miri, M., & Arab-Zozani, M. (2022). Investigating the strengths and weaknesses of online education during COVID-19 pandemic from the perspective of professors and students of medical universities and proposing solutions: A qualitative study. *Biochemistry and Molecular Biology Education*, 51(1), 94–102. <https://doi.org/10.1002/bmb.21691>

**Abstract:** This study aimed to explore the strengths and weaknesses of e-learning during the COVID-19 pandemic from the perspective of its primary stakeholders, namely professors and students, and to provide practical solutions. Design is a qualitative study. We enrolled 22 faculty members and 58 students purposively. Research data were collected through a data collection checklist and via email and continued until the data were saturated. The qualitative content analyses were the basis of analysis in this study. Strengths were presented in 6 themes and 26 subthemes, weaknesses in 5 themes and 23 subthemes, and solutions were presented in 5 themes and 20 subthemes. Save money, time and energy; use modern software and educational technologies; and the ability to individualize education were among the strengths of e-learning. The most important weaknesses related to e-learning include infrastructure difficulties, problems related to the ability of professors and students to use educational systems. The most beneficial solutions offered included improving and upgrading the e-learning infrastructure, empowering professors and students to use educational systems. We concluded that using online teaching has much strength as well as some weaknesses. Identifying these strengths and weaknesses can help policymakers plan better.

**Keywords:** COVID-19, qualitative study, strengths, virtual education, weaknesses.

14. Large, D. N., Van Doorn, N. A., & Timmons, S. C. (2022). Cancer and chemicals: A research-inspired laboratory exercise based on the Ames test for mutagenicity. *Biochemistry and Molecular Biology Education*, 51(1), 103–113. <https://doi.org/10.1002/bmb.21674>

**Abstract:** Laboratory courses should cultivate enthusiasm for research and an appreciation for real-world scientific challenges to retain undergraduate students and encourage them to pursue STEM-related careers. Course-based undergraduate research experiences (CURE) have emerged as an inclusive pedagogical model that facilitates laboratory skill development, while also improving self-efficacy and critical thinking skills. Herein, an innovative research-inspired Ames test for mutagenicity project is described. Students choose their own project theme and investigate substances using both TA98 and TA100 strains of *Salmonella typhimurium* to evaluate the potential for frameshift mutations and base-pair substitutions, respectively. An appropriate test concentration of each substance is first determined via a cytotoxicity assay, providing an additional learning opportunity. Students also study the mutagenicity of test substance metabolites using commercially available rat liver extracts to simulate metabolism. Overall, these experiences provide a comprehensive research project with high relevancy to human health and real-world importance. This laboratory module was assessed using CURE pre- and post-course surveys to evaluate learning gains and benefits. Assessment data illustrated that students appreciated the discovery aspect of the research project and gained skills related to reading scientific literature and effective poster presentations. Student-reported benefits of research project participation included learning new laboratory techniques, enhanced scientific writing skills, an increased tolerance for and understanding of common research challenges, and the confidence to tackle more complex research endeavors. Narrative feedback from students was very positive, with project highlights being the opportunity to select their own test substances and create new knowledge, as well as the analysis of results.

**Keywords:** cancer, curriculum design, integration of research into undergraduate teaching, laboratory exercises, mutagenesis.

15. Morán, P. (2022). What's my hamburger meat made of? *Biochemistry and Molecular Biology Education*. <https://doi.org/10.1002/bmb.21685>

**Abstract:** Outreach activities give high school students an opportunity to better understand the techniques and strategies used by researchers. Here is an experience with high school students designed to familiarize them with genetic methodologies. Students have been challenged to discover whether restaurant beef burgers are made with female or male beef. This represents a didactic way to introduce students to genetic traceability methodologies and also to demonstrate the usefulness of these methodologies in relation to food safety and, more importantly, in sustaining consumer confidence. The exercise is planned to be conducted in a one-day laboratory session.

**Keywords:** genetic traceability, PCR, scientific vocations, STEM.

## ECONOMIC AND POLITICAL WEEKLY

1. *Imagining a New Ethic of Sociality*. (2023, April 3). Economic and Political Weekly. <https://www.epw.in/journal/2023/13/special-articles/imagining-new-ethic-sociality.html>

**Abstract:** The works of three non-Brahmin educated women from 19th-century western India are read against dominant historiographies of womanhood. It is argued that these women resist being interpreted as evidence of liberal enlightenment thinking in anti-caste social reform, or as regional dissenting voices to incipient nationalist developments that place the spiritual–material binary at the centre of the women’s question. Rather, their works are read as intellectual resources that imagined a new ethic of sociality, using an embodied reason to alter the imagination of the “inner spiritual” by first destabilising it and then reimagining it. The paper locates the invention of the spiritual–material binary outside of anti-colonial motives via these women, making the articulation of a separation between the spiritual and the material untenable.

2. *Monetary Aggregates*. (2023, April 3). Economic and Political Weekly. <https://www.epw.in/journal/2023/13/special-articles/monetary-aggregates.html>

**Abstract:** An exploration of the information content within money confirms that despite the theoretical inconsistency inherent within a simple sum monetary aggregate, money supply (M3) has been a consistent leading indicator of the general slowdown in economic activities in India since March 2010. The paper also establishes an exogenous influence of the central bank balance sheet over M3 through a statistically stable money multiplier, a long-term stable relationship, and bidirectional Granger causality between M3 and reserve money. However, the monetary policy measures of the central bank that determine reserve money themselves take a cue from economy-wide factors, as presented in a multivariate forecast model for reserve money.

3. *Groundwater Irrigation and Agricultural Output Nexus*. (2023, April 3). Economic and Political Weekly. <https://www.epw.in/journal/2023/13/special-articles/groundwater-irrigation-and-agricultural-output.html>

**Abstract:** While the impact of groundwater irrigation on the productivity of crops and other parameters has been well-documented in India, not many studies are available highlighting its role in the value of agricultural output using district-level data. This paper attempts to find out the impact of groundwater irrigation on VAO using cross-sectional data for 189 Indian districts covering three time points: 1990–93, 2003–06, and 2017–20. Both descriptive and regression analyses have been used in this paper. The descriptive analysis shows that VAO per hectare is significantly higher for those districts having a high level of groundwater coverage (>50%) than the districts having less (<30%) groundwater irrigation. The multivariate regression analysis carried out by using yield augmenting and infrastructure variables shows that the role of groundwater irrigation in impacting VAO has significantly and consistently increased over time.

4. *Sustainability and Threshold Value of Public Debt in Tamil Nadu*. (2023, April 10). Economic and Political Weekly. <https://www.epw.in/journal/2023/14/special-articles/sustainability-and-threshold-value-public-debt.html>

**Abstract:** The sustainability and the threshold level of public debt in Tamil Nadu is examined using the modern time series methods and threshold regression method. The results suggest that the current level of debt in the state is unsustainable, and the debt sustainability threshold is about 18.5%, which is slightly lower than the 20% norm set by the Fiscal Responsibility and Budget Management review committee for states. The state should control its debt as it is currently not growth-inducing. The simulation exercise based on the debt dynamics of the state suggests that the state economy should grow at 14% and fiscal deficit target should be 2% from 2023–24 onwards to attain the debt sustainability target in 2035–36 and with 16% growth the state could reach the target in 2030–31. The relevant policy strategy for the state is to increase its own revenue–GSDP ratio by 0.75% and contain its revenue expenditures by 0.75% from 2023–24.

5. *A Re-examination of Gold Flows in India during the Inter-war Years*. (2023, April 10). Economic and Political Weekly. <https://www.epw.in/journal/2023/14/special-articles/re-examination-gold-flows-india-during-inter-war.html>

**Abstract:** Having been an importer of gold through the 19th and early 20th centuries, for the first time in its recorded colonial history, India witnessed massive gold exports to the tune of over ₹3.5 billion in the latter half of the inter-war years. Gaps in the recording of trade statistics during the period coupled with an inadequate understanding of the colonial economy have led to wrongly accounting for these exports as commodity gold exports. A reclassification of India's gold flows during the inter-war years shows that India's gold exports, which rightfully belonged in the capital account, were an outcome of a distress-driven sale of assets by the Indian peasantry in the 1930s and aided Britain's recovery from the depression.

6. *Platformisation, Infrastructuring, and Datafication*. (2023, April 10). Economic and Political Weekly. <https://www.epw.in/journal/2023/14/special-articles/platformisation-infrastructuring-and-datafication.html>

**Abstract:** The existing research on smart cities in India is situated either in the discursive understanding of the Indian idea of smart or analysis of selected cities' experiments. Breaking from this dichotomy, it is argued that rolling out of smart cities should be read along a longer history of neo-liberal municipal reforms, which has led to institutional rescaling through the special purpose vehicles and entrenched networks of consultants that drive contemporary urban interventions.

## EDUCATIONAL ASSESSMENT, EVALUATION AND ACCOUNTABILITY

1. Staberg, R. L., Febri, M., Gjøvik, Ø., Sikko, S. A., & Pepin, B. (2022). Science teachers' interactions with resources for formative assessment purposes. *Educational Assessment, Evaluation and Accountability*, 35(1), 5–35. <https://doi.org/10.1007/s11092-022-09401-2>

**Abstract:** Using a case-study approach, we aim to understand how teachers interact with both analogue and digital resources in the science classroom for formative assessment (FA) purposes and their justifications for such interactions. The study was conducted in the context of a European Union project on FA in science and mathematics education. The case involved two Norwegian primary school teachers teaching their grades 5 and 7 students a series of science lessons on the topic “how to prevent microorganisms from spreading.” The data set consisted of lesson plans, classroom observations, pre- and post-interviews conducted with teachers, student tasks, post-interviews with students, and student work. We identified eight analogue and digital resources, which were used to employ five FA strategies. The strategies that were most commonly used related to “engineering effective classroom discussions” that elicited evidence of student understanding and “activating students” as autonomous learners and peer instructors. The teachers' rationales for using the selected resources were mainly connected to their effectiveness, practicality, and relevance. Teacher interactions with the selected resources are described, and educational implications are discussed.

**Keywords:** Formative assessment, Assessment for learning, Science education, Primary school, Curriculum resources, Documentation approach to didactics

2. Rönn, C., & Pettersson, D. (2023). Swedish students' everyday school life and teachers' assessment dilemmas: peer strategies for ameliorating schoolwork for assessment. *Educational Assessment, Evaluation and Accountability*, 35(1), 37–66. <https://doi.org/10.1007/s11092-022-09400-3>

**Abstract:** In contemporary ways of thinking about education there is an enhanced focus on individual students' results and less on students' collaborative processes for attaining good results. This may appear peculiar, given that the Swedish curriculum for the nine-year compulsory school states that students should be given opportunities to compose texts together with others and give and receive feedback on them. This is also in line with societal desires to motivate students to take responsibility for their lifelong learning. The evolving ethnographic research design, comprising observations, audio-visual recordings and follow-up interviews with students at a Swedish lower secondary school (Years 8 and 9), investigated the informal social strategies that students enacted when doing formal schoolwork and how they reflected on them. Goffman's (1959/1990) dramaturgical metaphors of the back region, front region and impression management were applied as theoretical points of departure. The findings showed that some students worked hard at their schoolwork in ways that corresponded with societal desires and ideal learning curves. Other students aimed at more effortless achievements and relied heavily on peers and digital devices when taking shortcuts to produce formal assignments. These students' potential learning

curves showed a broken arrow of knowledge development, resulting in assessment dilemmas for teachers and possible mismatches in their grading.

**Keywords:** Assessment, Curriculum, Grades, Impression management, informal networking.

3. Ruelmann, M., Charalambous, C. D., & Praetorius, A. (2022). The representation of feedback literature in classroom observation frameworks: an exploratory study. *Educational Assessment, Evaluation and Accountability*. <https://doi.org/10.1007/s11092-022-09403-0>

**Abstract:** Feedback is considered of great relevance for supporting student learning. It is therefore the focus of a significant body of theoretical work and is included in many observation frameworks for measuring teaching quality. However, little is currently known about the extent to which the theoretical and empirical knowledge of feedback from the literature is represented in operationalizations of feedback in observation frameworks. In this exploratory study, we first reviewed the literature and identified nine quality criteria for effective feedback. Using content analysis, we then explored the extent to which 12 widely used observation frameworks for teaching quality reflect these criteria and the similarities and differences in their approaches to capturing feedback quality. Only ten of the 12 frameworks measured feedback. Nine frameworks addressed feedback directly, while one framework only captured feedback indirectly. All frameworks differed in the number of feedback quality criteria they captured, the aspects they focused on for each one, and the detail in which they described them. One criterion (Feed Up) was not captured by any framework. The results show that more clarity is needed about which facets of feedback are integrated into frameworks and why. The study also highlights the importance of finding ways to complement observation frameworks with other measures so that feedback quality is captured in a more comprehensive fashion.

**Keywords:** Classroom observation framework, Feedback measurement, Teaching quality, Literature Review, Feedback

4. Luoto, J., Klette, K., & Blikstad-Balas, M. (2022). Possible biases in observation systems when applied across contexts: conceptualizing, operationalizing, and sequencing instructional quality. *Educational Assessment, Evaluation and Accountability*, 35(1), 105–128. <https://doi.org/10.1007/s11092-022-09394-y>

**Abstract:** Capturing and measuring instructional patterns by using standardized observation manuals has become increasingly popular in classroom research. While researchers argue that a common vocabulary of teaching is necessary for the field of classroom research to move forward, instructional features vary across classrooms and contexts, which poses serious measuring challenges. In this article, we argue that potential biases embedded in observation systems have to be identified and addressed in order for interpretations of results across different classrooms and contexts to be valid and relevant. We identify three aspects of possible systematic biases (related to the grain size of conceptualization, operationalization, and sequencing of lessons) and how these may influence ratings of instructional quality when an established observation system (the Protocol for Language Arts Teaching Observations [PLATO]) is applied in the contexts of Nordic mathematics classrooms. We discuss

implications of such possible biases and make suggestions for how they may be addressed.

**Keywords:** Instructional quality, Bias, Standardized observations, Cross-cultural, classroom observations.

5. Levy, J., Brunner, M., Keller, U., & Fischbach, A. (2022). How sensitive are the evaluations of a school's effectiveness to the selection of covariates in the applied value-added model? *Educational Assessment, Evaluation and Accountability*, 35(1), 129–164. <https://doi.org/10.1007/s11092-022-09386-y>

**Abstract:** There is no final consensus regarding which covariates should be used (in addition to prior achievement) when estimating value-added (VA) scores to evaluate a school's effectiveness. Therefore, we examined the sensitivity of evaluations of schools' effectiveness in math and language achievement to covariate selection in the applied VA model. Four covariate sets were systematically combined, including prior achievement from the same or different domain, sociodemographic and sociocultural background characteristics, and domain-specific achievement motivation. School VA scores were estimated using longitudinal data from the Luxembourg School Monitoring Programme with some 3600 students attending 153 primary schools in Grades 1 and 3. VA scores varied considerably, despite high correlations between VA scores based on the different sets of covariates ( $.66 < r < 1.00$ ). The explained variance and consistency of school VA scores substantially improved when including prior math and prior language achievement in VA models for math and prior language achievement with sociodemographic and sociocultural background characteristics in VA models for language. These findings suggest that prior achievement in the same subject, the most commonly used covariate to date, may be insufficient to control for between-school differences in student intake when estimating school VA scores. We thus recommend using VA models with caution and applying VA scores for informative purposes rather than as a mean to base accountability decisions upon.

**Keywords:** Value-added models, Elementary school, Accountability, Multilevel models.

## GLOBALISATION, SOCIETIES AND EDUCATION

1. Moscovitz, H., & Sabzalieva, E. (2023). Conceptualising the new geopolitics of higher education. *Globalisation, Societies and Education*, 1–17. <https://doi.org/10.1080/14767724.2023.2166465>

**Abstract:** Introducing the special issue on the ‘New Geopolitics of Higher Education’, this article promotes a renewed understanding of geopolitics as it pertains to higher education. To frame the special issue, which explores how higher education practices and policies are being shaped by shifting geopolitical dynamics, a state of the art review of the literature links geopolitics to higher education, identifying its current edges and delineating key categories into which these studies tend to fall. A new conceptual framework to investigate how higher education is affected by prevailing geopolitical currents is then introduced. The Scales, Agents, Interests and Opportunity Structures (SAIOS) framework accounts for the multifaceted ways in which the new geopolitics interact with higher education policy decisions and actions, offering a flexible tool applicable to current and future inquiries. Finally, the article calls for different and more critical approaches to study the new geopolitics of higher education that engage with the critical geopolitics literature. By making more explicit connections between higher education studies and critical geopolitics, this article elevates the dialogue between these two bodies of scholarship and advances the prospect for a subfield of higher education studies, one concerned with geopolitics as an underlying theme.

**Keywords:** Critical geopolitics, higher education, globalisation of higher education, geopolitics of knowledge, power, internationalisation of higher education

2. Fúnez-Flores, J. I. (2022). Toward decolonial globalisation studies. *Globalisation, Societies and Education*, 21(2), 166–186. <https://doi.org/10.1080/14767724.2022.2048796>

**Abstract:** This article draws on the epistemologies of the South, namely decolonial theory, to point to the analytical and interpretive limitations of northern theories of globalisation. It gestures toward decolonial globalisation studies to provide an alternative reading of global justice movements, including university student movements in Latin America. Moreover, it maintains that situating university student movements geopolitically provides a valuable way out of the theoretical limitations of critical globalisation studies informed by northern perspectives. By adopting a geopolitical perspective, decolonial globalisation studies unsettles and provincialises the central myth of modernity, which portrays the emergence of modern institutions and globalisation as endogenous European and Anglo-American phenomena subsequently diffused to the Global South. Finally, this article addresses the need for decolonial globalisation studies to ground its theorisation in alternative sites of knowledge production.

**Keywords:** Geopolitics of knowledge, decolonial theory, epistemologies of the south, neoliberal globalisation, coloniality, student movements

3. Guzmán-Valenzuela, C. (2022). Dismantling new and old forms of colonialism: border thinking in Latin American universities. *Globalisation, Societies and Education*, 21(2), 187–203. <https://doi.org/10.1080/14767724.2022.2095988>

**Abstract:** Latin American universities have been subject to old and new forms of colonialism that act concurrently. Old forms of colonialism are based on a matrix of race and labour divisions that universities have inherited, reproduced, and reinforced. New forms of colonialism are attaching to global forces that promote a world class university model based on prestige, competition and international rankings. By means of both a bibliometric and a thematic analysis, this paper examines scholarly work on colonialism and internationalisation in Latin American universities and suggests that Latin American universities have developed both local and global-oriented mechanisms so as to deal with old and new forms of colonialism. Both mechanisms take place within universities although one is oriented to local actions, while the second has a more reflective nature. It is argued that both mechanisms are part of what has been called ‘border thinking’, that is collective and contesting narratives and actions that aim to dissolve colonial forces in the periphery. Although Latin American universities have been proactive in developing concrete initiatives to cope with older local forms of colonialism, a further task remains of promoting and instituting initiatives that confront the newer and global forms of academic colonialism.

**Keywords:** Colonialism, decolonial studies, universities, Latin America, dialogue among knowledges, border thinking

4. Vlachou, M., & Tlostanova, M. (2022). The geopolitics of international higher education prior and during Covid-19: a decolonial feminist analysis. *Globalisation, Societies and Education*, 1–18. <https://doi.org/10.1080/14767724.2022.2127406>

**Abstract:** Thinking with four non-EU academic migrants from the global South, and their experiences of working/studying or starting to work/study during the Covid-19 pandemic, we are unravelling the current geopolitics of the internationalised higher education in the global North. Our central argument is that Covid-19 has not simply affected the national and global politics of migration, including international academic migration, but it has also worked as a magnifying glass of the historically established inequalities sustained and perpetuated by physical, biomedical and epistemic borders. Most importantly, we are not following the rather obvious theoretical route of biopolitics while analysing the internationalisation of higher education in relation to the Covid-19 health crisis and migration politics. Instead, we are looking at this geo-biopolitical and epistemic assemblage through a decolonial lens. In doing so, we want to contribute with our and our interviewees’ reflections to the ongoing discussion on what currently counts as ‘internationalisation’ in higher education, pointing out the colonial and neoliberal foundations of it, and the possibilities of aligning it with the efforts of decolonising the university.

**Keywords:** Academic migrants, coloniality of time, geopolitics, international higher education, Covid-19, decolonising HE

5. Cerna, L., & Chou, M. (2022). Politics of internationalisation and the migration-higher education nexus. *Globalisation, Societies and Education*, 1–14. <https://doi.org/10.1080/14767724.2022.2073975>

**Abstract:** Taking the migration-higher education nexus as an analytical entry point, we address the question: How can we account for different internationalisation outcomes? We focus on three actors involved in the global race to internationalise higher education activities: higher education institutions (HEIs), states, and migrants. We argue that the migration-higher education nexus enables us to begin describing and explaining differences in internationalisation outcomes (i.e. greater, limited, or none) by focussing our empirical attention on the interaction between HEI internationalisation strategies, state policies, and migrant agency to move/stay. We delineate various configurations of these interactions and how they determine internationalisation outcomes.

**Keywords:** Foreign faculty, higher education, international students, internationalisation, migration, university

6. Brunner, L. R. (2022). Higher education institutions as eyes of the state: Canada's international student compliance regime. *Globalisation, Societies and Education*, 1–16. <https://doi.org/10.1080/14767724.2022.2037407>

**Abstract:** As immigration polices increasingly entangle with those of higher education (HE), institutions are being positioned as migrant surveillance actors. HE's participation in state-managed international student compliance regimes (ISCRs), for example, raises political and ethical questions, including those concerning the core mission of HE. This paper traces the Canadian ISCR context over the past decade, focusing on the introduction of the Designated Learning Institution (DLI) student compliance reporting requirement in 2014. It argues that Canadian HE's role in surveilling temporary residents on behalf of the state is a problematic bordering practice. It also posits that this new form of surveillance is not necessarily a novel compromise of HE's values, but rather connected to historical patterns of HE's involvement in border imperialism. It questions the benevolence of both Canada's immigration policies towards international students and, ultimately, higher education itself.

**Keywords:** Higher education, international students, internationalisation, surveillance, border imperialism, international student compliance regime

7. Rubin, J., & Bose, L. S. (2022). Dominant or dominating? Imaginaries of higher education in Turkey and Northern Syria. *Globalisation, Societies and Education*, 21(2), 252–265. <https://doi.org/10.1080/14767724.2022.2124402>

**Abstract:** This paper examines the ways in which administrators, academics and students living under conditions of authoritarianism come to imagine the university's political possibilities and horizons. To this aim, we first consider how alternative imaginaries are constructed and contained at Boğaziçi University, where the parameters of political possibility are pre-figured both by the current ruling regime and the enduring histories of empire that pre-date it. Then, we turn to Aleppo countryside, where we compare Syrian opposition universities to newly established Turkish ones. In doing so, we attempt to trace the ideational lifeline of Syria's revolutionary imaginary as it persists in higher education under conditions of disillusionment and co-optation. When taken together, we argue, these two cases point

not to the primacy of belief in creating or sustaining imaginaries, but rather to the constitutive role of violence, coercion and control in shaping notions of who and what the university is for.

**Keywords:** Higher education, imaginaries, authoritarianism, conflict, ideology, belief

8. Si, H., & Lim, M. A. (2022). Neo-tributary geopolitics in transnational higher education (TNHE): a regional analysis of Sino-foreign higher education partnerships. *Globalisation, Societies and Education*, 21(2), 266–277. <https://doi.org/10.1080/14767724.2022.2040354>

**Abstract:** This research explores how geopolitics and ‘Neo-tributary’ relations influence the distribution of TNHE partnerships in China. Specifically, this research situates China’s TNHE cooperation in policy reforms and designs since 2010, and explores how geopolitics influences the regional practice of re-organisation of the joint programmes between 2018 and 2020. The findings show that, on one hand, China’s central government prioritises the TNHE partnerships in China’s local regions: East China, Central China and West China; and on the other hand, alongside the traditional partner countries, such as the UK and the US, the emerging BRI region enjoys more new Sino-foreign HE partnerships than other foreign partners. This research develops the discussion based on the categories of trade and diplomacy linkages; cultural assimilation; and image building (Pan, Su-Yan, and Joe Tin-Yau Lo. 2017. “Re-Conceptualizing China's Rise as a Global Power: A Neo-Tributary Perspective.” *The Pacific Review* 30 (1): 1–25.), and concludes with some of the implications of these trends on the ‘new’ geopolitics of knowledge in a Neo-tributary system.

**Keywords:** BRI, regions, geopolitics, neo-tributary relations, TNHE partnership

9. Brøgger, K. (2022). Post-Cold war governance arrangements in Europe: the University between European integration and rising nationalisms. *Globalisation, Societies and Education*, 1–15. <https://doi.org/10.1080/14767724.2022.2075832>

**Abstract:** This article explores new nationalisms as part of the conflicting political interactions constituting the post-Cold war governance arrangements in higher education. Drawing on policy documents, archival sources and interviews and against the backdrop of a historical perspective on the university and the EU’s role as an education actor, the article investigates the development from internationalisation to national protectionism in Danish higher education policy. The article suggests that current practices concerning the nation-state are reshaping international collaboration and that these new nationalisms are characterised by post-Cold War readjustments and displacements in the relation between the university, the nation-state and international alliances.

**Keywords:** Post-Cold war university governance, EU, neo-nationalism, European integration, mobility, internationalization

10. Shahjahan, R. A., & Grimm, A. (2022). Bringing the ‘nation-state’ into being: affect, methodological nationalism and globalisation of higher education. *Globalisation, Societies and Education*, 1–13. <https://doi.org/10.1080/14767724.2022.2036107>

**Abstract:** Methodological nationalism (MN) pervades higher education scholarship and practice, particularly in the arena of globalisation of higher education (HE) (Shahjahan and Kezar 2013). MN refers to the assumption that national boundaries define the natural category or unit of analysis for society. Drawing on affect theories, this conceptual article aims to problematise how the ‘nation state’ as a natural category (or container) *pervades* global HE practices and policies. Affect refers to emotions, responses, reactions and feelings that are relational and transpersonal, and an object’s (e.g., nation-state) continuous emergence and unfolding in a world driven by intensities and feelings. Based on three real-life examples in/about South Asian HE, we demonstrate how the ‘nation-state’ category *comes into being (and becomes ‘sticky’)* through the experienced and imagined encounters among: (a) individuals, (b) national policy and (c) transnational actors. We show how, through imaginaries and practices, the ‘global’ manifested through using the ‘nation-state’, indicating a strong and evolving relationship between the two categories, informed by emotional and imaginative futures. We argue that an affect lens illuminates how MN is perpetuated as the nation-state becomes a naturalised container for (potential) encounters in the enactments of HE globalisation and moving beyond MN requires an ontological shift.

**Keywords:** Affect theory, globalisation, nation-state, methodological nationalism, higher education, mobility

## INDIAN ECONOMIC AND SOCIAL HISTORY REVIEW

1. Malayil, A. (2023). Commercialisation and landed proprietorship on the Malabar Coast in the eighteenth century. *Indian Economic and Social History Review*, 60(1), 5–36. <https://doi.org/10.1177/00194646221148707>

**Abstract:** This article proposes a systemic connection between cash-crop gardening, commercialisation and individually-owned landed property in late eighteenth-century Malabar on the southwestern coast of India. The discussion starts with a focus on the English East India Company's (EIC) early nineteenth-century investigations into land tenure and land tax. It identifies an agreement of opinion between two EIC revenue officers, Thomas Munro (d. 1827) and Francis Whyte Ellis (d. 1819), otherwise known to occupy rival intellectual positions. Both of them agreed on the existence of privately-owned landed assets in the region. This article calls this agreement 'the Malabar consensus' and argues that it was founded on an objective, if not intimate, examination of a set of specific historical conditions. The first section explores the tenurial category *janmam* or the *aṭṭipēru* of the eighteenth century and describes certain procedural innovations in the realm of landed and agrarian assets which mark a generalised transition along the coast of Malabar during the early modern centuries. The second section attempts to explain a set of economic opportunities that the *aṭṭipēru* stakeholders, finding themselves in a political and economic transition, found available in the eighteenth century. These innovations and the opportunities they provided were instrumental in creating a substantial class of parvenue landowners, and also an equally significant social class of share-croppers and wage-earners whose emergence characterised the early modern Malabar experience.

**Keywords:** Malabar, Thomas Munro, Janmam right, land mortgage, private property, Ryotwari, Early modern

2. Ankit, R. (2023). Probing early Pakistan: East Bengal politicians and their exchanges with Prime Minister Liaquat Ali Khan, 1947–51. *Indian Economic and Social History Review*, 60(1), 37–58. <https://doi.org/10.1177/00194646221148690>

**Abstract:** This article builds on the correspondence of the prime minister of Pakistan with five political figures from East Bengal who flourished between 1947 and 1951. These were Khwaja Nazimuddin and his brother Shahabuddin, Fazlur Rahman, Nurul Amin and Jogendranath Mandal. Their exchanges with Prime minister Liaquat Ali Khan—at the head of the central government in Karachi—provide a portentous pre-history of the future engagements between the two wings and their states and societies in the lead-up to the birth of Bangladesh in 1971. The fragments of these exchanges presented here are an attempt to provide a glimpse into Bengali politicians' manifold activities in Pakistan, which revolved around the minority and refugee question, religious orientation of education, non-devaluation and its impact on trade, a range of administrative issues and party politics. Drawing upon their letters in the Liaquat Ali Khan papers, this article deploys these five themes as entry-points into East–West exchanges before and beneath the conventional coordinates of linguistic provincialism (1948–52), economic instigation (1954–66) and democratic desires (1966–71).

**Keywords:** Pakistan, political leadership, nation-state, region, East Bengal

3. Kumar, S. (2023). Debating nationalism: Bihari intelligentsia and the Swadeshi movement of Bengal. *Indian Economic and Social History Review*, 60(1), 59–79. <https://doi.org/10.1177/00194646221148705>

**Abstract:** During the Swadeshi movement in Bengal, the bhadralok advocated an idea of Indian nationalism that freely used Hindu myths, symbols and imagery and hence tended to exclude several multi-ethnic religious communities from its reach. A section of intellectual and political elites in Bihar saw this as a narrow projection of the idea of Indian nationalism. They challenged it as a form of Hindu nationalism and argued that a true idea of nationality could evolve in India only when backward regions like Bihar achieved a certain level of progress and development, as well as a separate sub-national political identity. They also rejected the revolutionary militant, nationalism that was gaining popularity among the youth. Exploring the tensions that played out between the bhadralok political elites and the intelligentsia in Bihar over the question of Indian nationalism during the Swadeshi movement of Bengal, this article argues for an emphasis on the sub-regional and secular aspects of nationalism and that the non-violent freedom struggle against colonialism was a critical dimension for understanding the rise of nationalism in early twentieth-century India.

**Keywords:** Nationalism, Swadeshi, sub-regional, secular, revolutionary, non-violence

4. Jha, S. K. (2023). A study of the socio-economic context and impact of influenza pandemic of 1918–19 on Bihar. *Indian Economic and Social History Review*, 60(1), 81–104. <https://doi.org/10.1177/00194646221148699>

**Abstract:** The influenza pandemic of 1918–19 wreaked havoc all over the world, and Bihar, where more than a million people died, was no exception. The pandemic became more lethal in Bihar relative to what we know of other states in eastern India. Why did rural mortality surpass urban mortality? How did the pandemic worsen the socio-economic crisis in the years that followed? This study examines the socio-economic context of the pandemic in Bihar at a micro-level and investigates how the pandemic became unbearable for the people due to a severe economic crisis that resulted from the war and failed monsoons, among other factors. It seeks to explain the manner in which factors such as agricultural failure, inflation, high population density and poor health infrastructure resulted in higher rural mortality. It also shows how the loss of the younger generation and forced migration during the pandemic resulted in a lower rate of birth in the years following the pandemic, resulting in a loss of the labour force and worsening of the agrarian crisis.

**Keywords:** Influneza, pandemic, Bihar, migration, health

## INDIAN JOURNAL OF GENDER STUDIES

1. Burton, A. (2022). New Histories of Gender, Mobility and Labour: India and the Indian Diaspora. *Indian Journal of Gender Studies*, 30(1), 7–10. <https://doi.org/10.1177/09715215221133526>

**Abstract:** This essay introduces the themes of the special issue, with particular attention to the work of gender in restructuring social, economic and political histories.

**Keywords:** Gender, labour, archives, diaspora, feminist history

2. Dhupelia-Mesthrie, U. (2023). The Letters of Sushila Gandhi: From Press Worker to Managing Trustee of Phoenix Settlement in South Africa, 1927 to 1977. *Indian Journal of Gender Studies*, 30(1), 11–32. <https://doi.org/10.1177/09715215221133527>

**Abstract:** An epistolarium of over 80 letters written by a first-generation Gujarati migrant woman to South Africa provides the basis for the construction of her biography. The personal register of the letters written to family and friends allows her to shape this biography and for her voice to be heard though filtered through the process of translation and selection. The letters are read for expressions of labour performativity, the meaning of work and its challenges, her political astuteness and for the intersections with her other roles such as that of wife and mother for there was a seamlessness across these. Her growth as a letter writer over five decades is mirrored by her maturation in all spheres of her life. Through her transnational life, there is the opportunity to consider what role movement to Africa had in this development. The space of Phoenix Settlement, a farm started by Mohandas Gandhi, plays a central role in her transformation, growth and relations with men.

**Keywords:** Letters, Gandhi, Phoenix, South Africa, Indian Opinion, auto/biography

3. Datta, A. (2022). Stranded: Indian Travelling Ayahs Negotiating Waiting and Repatriation. *Indian Journal of Gender Studies*, 30(1), 33–54. <https://doi.org/10.1177/09715215221133541>

**Abstract:** The expansion of the British Empire facilitated movement across the globe for both colonisers and colonised. This article focuses on the experiences of travelling ayahs (servants and nannies) who travelled with colonial families both within and outside the British Empire. This study expands on the previous literature to focus on the experiences of ayahs in Britain and the rest of Europe under unusually difficult situations of waiting brought about by events at both global and individual levels: at the global level, the outbreak of the world wars and at the individual level, the actions of irresponsible employers who abandoned their ayahs in foreign countries. In so doing, the article contributes to a nuanced understanding of how the ayahs navigated waiting as gendered subjects, and simultaneously, how they actively attempted to craft their repatriation in the context of the highly gendered expectations attached to women of South Asian descent on the move.

**Keywords:** Travelling ayahs, care labour, migration, war, waiting, repatriation, British Empire

4. Chattopadhyaya, U. (2022). Bodies That Cohere: Notes on Ganja and Gender in Colonial India. *Indian Journal of Gender Studies*, 30(1), 55–77. <https://doi.org/10.1177/09715215221133542>

**Abstract:** This essay explores what might result if histories of empire and colonialism took the material relationships of human and plant bodies as a fundamental framework. Gender both structured, and was reproduced through, various relationships shaped by collisions between British imperialism and the natural and social worlds of colonial India. Taking up the mutually constitutive formation of the sexuality of a plant body and the body of the sex worker in colonial India, this essay attempts to analyse gender more expansively beyond human bodies marked by colonial rule. It examines how labour, performed as sex work as well as floral sex work, formed an axis around which gendered relationships could cohere over time. It argues that placing the plant, its sexuality and its scaffolding botanical frameworks on the one hand, and anxieties of colonial patriarchal arrangements on the other, can further complicate and deepen a historical analysis of colonialism in South Asia.

**Keywords:** Gender, cannabis, ganja, bhang, prostitute, botany

## INTELLECTUAL AND DEVELOPMENTAL DISABILITIES

1. Pettingell, S. L., Bershadsky, J., Hewitt, A., Anderson, L. L., & Zhang, A. (2023). Direct Support Professionals and COVID-19 Vaccination: A Comparison of Vaccinated and Unvaccinated Direct Support Professionals. *Intellectual and Developmental Disabilities*, 61(1), 1–15. <https://doi.org/10.1352/1934-9556-61.1.1>

**Abstract:** Direct support professionals (DSPs) may be at increased risk of contracting COVID-19 due to the proximal nature of their work. In response to the pandemic a three-wave study was launched to understand experiences of DSPs. An on-line national survey found that 70% of DSPs were vaccinated. Vaccinated DSPs were older and had higher education levels. Among the unvaccinated, 56% reported concerns about COVID-19 vaccination safety. Unvaccinated DSPs were more likely to report that the people they supported were also unvaccinated. Encouraging DSPs to get vaccinated to protect the people they support is essential. Paid time off, arranging for vaccinations, and setting an expectation for vaccination may encourage vaccination uptake among DSPs.

**Keywords:** direct support professionals, COVID-19, vaccinations, IDD, direct support workforce

2. Lineberry, S., Bogenschutz, M., Dinora, P., & Ayers, K. (2023). The Role of Information and Knowledge in COVID-19 Vaccination Among People With Intellectual and Developmental Disabilities and Their Families. *Intellectual and Developmental Disabilities*, 61(1), 16–30. <https://doi.org/10.1352/1934-9556-61.1.16>

**Abstract:** People with intellectual and developmental disabilities (IDD) may be at an increased risk of severe illness and death from COVID-19. This article examines the role of information and knowledge in COVID-19 vaccine uptake for people with IDD and their families. We developed a survey about COVID-19 vaccine uptake, confidence, and knowledge for people with IDD and their families. COVID-19 vaccine uptake was associated with higher self-reported knowledge about the vaccine, learning about the vaccine from one's doctor, and social media use. Qualitative results reflected the importance of trusted relationships with medical providers in vaccination.

**Keywords:** COVID-19, intellectual and developmental disabilities, vaccine uptake.

3. Biggs, E. E., Douglas, S. N., Therrien, M. C. S., & Snodgrass, M. R. (2023). Views of Speech-Language Pathologists on Telepractice for Children Who Use Augmentative and Alternative Communication. *Intellectual and Developmental Disabilities*, 61(1), 31–48. <https://doi.org/10.1352/1934-9556-61.1.31>

**Abstract:** Telepractice has become increasingly utilized in disability services, particularly with recent and ongoing measures to slow the spread of the novel coronavirus (COVID-19). In this study, 361 speech-language pathologists (SLPs) responded to a national, web-based survey about their views on utilizing telepractice with children aged 3 to 21 who used aided augmentative and alternative

communication (AAC), such as picture symbols or speech-generating devices. The views of SLPs varied, and SLPs who received training on AAC telepractice within the last 12 months had more positive views about telepractice than those who did not. Several factors were associated with when and how SLPs thought telepractice was beneficial to serve children who use aided AAC, including SLPs' foundational perspectives about telepractice, service delivery options, considerations related to the child and family, and broader resources and constraints.

**Keywords:** telepractice, complex communication needs, services, AAC, COVID-19

4. Aller, T. B., Russo, R. B., Kelley, H. H., Bates, L., & Fauth, E. B. (2023). Mental Health Concerns in Individuals With Developmental Disabilities: Improving Mental Health Literacy Trainings for Caregivers. *Intellectual and Developmental Disabilities, 61*(1), 49–64. <https://doi.org/10.1352/1934-9556-61.1.49>

**Abstract:** Although approximately a third of individuals with intellectual and developmental disabilities (IDD) also experience a mental health concern, caregivers often miss early identification of these issues. In this perspective piece, we present an outline for a mental health literacy program that can enhance existing training approaches for caregivers of individuals with IDD. We describe three processes of the Mental Health Awareness and Advocacy (MHAA) curriculum and detail how it provides a strong preventative model to train caregivers to increase their mental health literacy. In describing these processes, we provide illustrative examples and conclude by providing a brief vignette that highlights how this process could be used by caregivers to help reduce mental health concerns in individuals with IDD.

**Keywords:** mental health literacy, gatekeeper, training, caregivers, direct service providers

5. Dinora, P., Prohn, S. M., Bogenschutz, M., Broda, M. D., Lineberry, S., & West, A. (2023). An Examination of Support Needs, Supports, and Outcomes for People With Intellectual and Developmental Disabilities. *Intellectual and Developmental Disabilities, 61*(1), 65–78. <https://doi.org/10.1352/1934-9556-61.1.65>

**Abstract:** Researchers used a merged dataset to examine if more resources were expended on those with greater support needs and if support needs impacted personal outcomes when controlling for relevant personal and contextual factors. Results indicated that the amount of support a person receives had a direct relationship to their needs. However, we also found that people with the greatest needs had weaker personal outcomes suggesting that distribution of resources based on need may not result in equivalent outcomes. The authors suggest strategies at an individual and systems level to address the outcomes gap for people with the greatest support needs.

**Keywords:** Medicaid home and community-based services, personal outcomes, support needs

6. McLennan, J. D., Fulford, C., Hrycko, S., Cobigo, V., & Tahir, M. (2023). Service Use Patterns by Children With Down Syndrome in a Canadian Region. *Intellectual and Developmental Disabilities, 61*(1), 79–88. <https://doi.org/10.1352/1934-9556-61.1.79>

**Abstract:** Children with Down syndrome require services from different sectors over time to optimize health and development, however, there is little information on longitudinal, cross-sector service use. Parents of children with Down syndrome attending a Canadian children's hospital participated in semistructured interviews covering life-time multiple sector service use. Five key service patterns were identified: (1) primary care physicians playing a circumscribed role; (2) a marked shift in public habilitative service receipt from development agencies in the preschool years to exclusive school delivery after school entry; (3) families obtaining private services to address gaps from public sector services; (4) a prominent role for parents to identify additional services; and (5) service variability as a function of timing and severity of medical comorbidity.

**Keywords:** Down syndrome, service use, children, Canada

## JOURNAL OF APPLIED DEVELOPMENTAL PSYCHOLOGY

1. Ding, X. P., Tay, C., Chua, Y. J., & Cheng, J. K. T. (2023). Can classic moral stories with anthropomorphized animal characters promote children's honesty? *Journal of Applied Developmental Psychology*, 85, 101498. <https://doi.org/10.1016/j.appdev.2022.101498>

**Abstract:** Moral stories featuring animal characters have historically been used to cultivate virtues in children. The present study examined whether moral stories with anthropomorphized animal characters are effective at promoting honesty in 3- to 6-year-old Singaporean children ( $N = 228$ ). Honesty was assessed using the temptation resistance paradigm. Results showed moral stories had no effect on the honesty of 5- to 6-year-olds. In contrast, for 3- to 4-year-olds, the effectiveness of moral stories differed based on the type of character. Compared to a control story where wrongdoing occurred but truth-telling did not, moral stories featuring humans were effective at promoting honesty in 3- to 4-year-old children, while moral stories featuring anthropomorphized animals (elephants in Study 1; rats in Study 2) were not as effective as the moral stories featuring humans. The current study sheds light on how to modify classic moral stories to maximize their usefulness at promoting honesty.

2. Duncan, R. A., Korucu, I., & Schmitt, S. A. (2023). Variations in early life home environment quality and children's achievement. *Journal of Applied Developmental Psychology*, 85, 101500. <https://doi.org/10.1016/j.appdev.2022.101500>

**Abstract:** The current study examines to what extent naturally occurring variation in the timing of home environment quality during the first five years of life differentially predicts achievement before school entry and at the end-of-elementary school. Data from two longitudinal studies were used: the Early Head Start Research and Evaluation Study (EHSRE;  $N = 2977$ ) and the Study of Early Child Care and Youth Development ( $N = 1364$ ). Across both datasets, there was support for later time-specific variations in home quality during the first five years as relatively more important for school readiness. In the EHSRE dataset only, there was support for earlier time-specific variations in home quality during the first five years as relatively more important for end-of-elementary school achievement. Implications for the developmental timing of variations in home environmental quality over the first five years and children's achievement are discussed.

3. Yu, J. J. (2023). Marital satisfaction and parental warmth in predicting children's peer social competence. *Journal of Applied Developmental Psychology*, 85, 101499. <https://doi.org/10.1016/j.appdev.2022.101499>

**Abstract:** This study tested longitudinal dyadic interdependence in parental marital satisfaction, parental warmth, and children's peer social competence using a nationally representative sample of South Korean children ( $N = 2107$ ; 49.2% girls). The first seven waves of data collected annually from the birth of a child were used where parents (mothers:  $M = 31.31$  years,  $SD = 3.72$ ; fathers:  $M = 33.84$ ,  $SD = 4.03$  at W1) reported marital satisfaction and parental warmth and preschool teachers ( $M = 29.70$  years,  $SD = 6.92$ , 99.3% females at W5) rated children's peer social competence. Children's peer social competence was positively predictive of paternal

warmth and vice versa, whereas it was not predictive of maternal warmth, which in turn negatively predicted children's subsequent peer social competence. Findings highlight positive family-to-school spillover and the intertwined interdependence between parents and between parents and children.

4. Soininen, V., Pakarinen, E., & Lerkkanen, M. (2023). Reciprocal associations among teacher–child interactions, teachers' work engagement, and children's social competence. *Journal of Applied Developmental Psychology*, 85, 101508. <https://doi.org/10.1016/j.appdev.2022.101508>

**Abstract:** This study aimed at examining reciprocal associations among teacher–child interactions, teachers' work engagement, and children's social competence across grade 1. The participants were 51 Finnish teachers and 815 children. The quality of teacher–child interactions (emotional support, classroom organization, and instructional support) was assessed with the Classroom Assessment Scoring System. In addition, teachers reported their work engagement and rated children's social competence (prosocial and antisocial behaviors). The results of the multilevel modeling indicated that high-quality instructional support was associated with more prosocial and less antisocial behavior. Prosocial behavior was associated with higher-quality instructional support. Work engagement was associated with less antisocial behavior, and prosocial behavior with higher work engagement. Finally, work engagement was associated with higher-quality teacher–child interactions. The results suggest that teachers can enhance children's social competence with high-quality instructional support. Moreover, children's prosocial behavior can be reflected in teacher–child interactions and in teachers' work engagement.

5. Wylie, B. E., Evans, A. D., McWilliams, K., & Stolzenberg, S. N. (2023). Children's understanding of implied coaching questions: Does acquiescence influence perceptions of believability? *Journal of Applied Developmental Psychology*, 85, 101510. <https://doi.org/10.1016/j.appdev.2022.101510>

**Abstract:** The present study examined whether children understood the implied meaning of coaching questions. Researchers read 9- to 12-year-olds ( $N = 116$ ) vignettes depicting an adult transgression where a child protagonist disclosed to their mother (who was supportive or unsupportive), and then a police officer who asked three implied coaching questions (e.g., “Did the mom *practice* with the girl what to say?”). Participants answered the questions on behalf of the child protagonist and made assessments about whether the protagonist should be believed (i.e., assessing children's understanding that acquiescence implied coaching, and in turn the protagonist should not be believed). When the parent was unsupportive, children rarely affirmed coaching. When the parent was supportive, children's acquiescence decreased with age and increased in response to subtle questions. Children failed to understand the implied meaning, instead relying on parental support to inform their believability assessments. Implied coaching questions are problematic, especially when children first disclose to a supportive adult.

6. Choi, J., Lee, J., Park, M. Y., & Kim, H. K. (2023). Heterogeneity in Korean school dropouts and its associations with emerging adulthood adjustment. *Journal of Applied Developmental Psychology*, 85, 101509. <https://doi.org/10.1016/j.appdev.2022.101509>

**Abstract:** Using a Korean national longitudinal survey, the present study sought to identify heterogeneous profiles of school dropouts based on contextual risks and their associations with career-related outcomes (attainment of a high-school diploma and productive engagement) and mental health problems (depressive symptoms, substance use, addiction to electronic devices, and unhealthy eating habits) in emerging adulthood. Latent profile analysis identified four risk profiles: “moderate family/school risks” (54.29%), “early dropout with high SES” (8.89%), “early dropout with multiple risks” (7.30%), and “school maladjustment” (29.52%). The “early dropout with multiple risks” profile showed poor career-related outcomes, while the “school maladjustment” profile exhibited higher productive engagement but higher mental health problems. The “school maladjustment” profile showed higher depressive symptoms and addiction to electronic devices in emerging adulthood through increased perceived social stigma. Integrated programs addressing education, career development, and mental health, are needed while taking into account unique contexts and at-risk domains in each profile.

7. Hale, M. E., & Zeman, J. L. (2023). Parent and friend emotion socialization in adolescence: The path to internalizing symptoms. *Journal of Applied Developmental Psychology*, 85, 101513. <https://doi.org/10.1016/j.appdev.2023.101513>

**Abstract:** Emotion socialization is a fundamental process for adolescent's psychological functioning, yet multiple socialization agents have rarely been examined simultaneously. We tested emotion regulation (ER) as a mediator and friend supportive emotion socialization as a moderator on the relation between parent unsupportive emotion socialization and adolescent internalizing symptoms. Participants were 132 adolescents ( $M_{age} = 16.30$  years, 53.0% girls, 80.3% White) and a parent. We used a multi-method (observation, questionnaires) and multi-informant (parent, adolescent) approach. Parent unsupportive emotion socialization was linked to poorer sadness/worry and anger regulation. Friend supportive sadness/worry and anger socialization were related to fewer internalizing symptoms. Regarding moderation effects, at low levels of sadness/worry friend socialization, the link between sadness/worry regulation and internalizing symptoms was strongest, although also significant at medium and high levels of friend support. Both type of emotion and socialization agent are important to consider when understanding associations with internalizing symptoms.

8. Finch, J. E., Akhavein, K., Patwardhan, I., & Clark, C. A. (2023). Teachers' self-efficacy and perceptions of school climate are uniquely associated with students' externalizing and internalizing behavior problems. *Journal of Applied Developmental Psychology*, 85, 101512. <https://doi.org/10.1016/j.appdev.2023.101512>

**Abstract:** Early externalizing and internalizing problems undermine children's school success and long-term well-being. Leveraging a large, U.S.-representative dataset ( $N \approx 14,810$ ), we examined how kindergarten teachers' self-efficacy and school climate perceptions were linked to students' behavior problems in kindergarten and first grade. Teachers' self-efficacy and school climate perceptions were uniquely linked to kindergarteners' externalizing and internalizing behaviors, after controlling for demographic covariates and children's executive functions. Kindergarten teachers' higher self-efficacy predicted lower levels of children's externalizing problems in first

grade, while teachers' positive school climate perceptions predicted children's lower internalizing problems in first grade. Longitudinal models demonstrated that teachers' perceived school climate and self-efficacy were uniquely associated with decreases in children's externalizing and internalizing behaviors from kindergarten to first grade. Findings highlight the importance of teachers' self-efficacy and school climate for children's socio-emotional development and underscore an urgent need to determine how best to support teacher well-being to optimize children's outcomes.

9. Gold, E., Carnelley, K. B., & Rowe, A. C. (2023). Attachment security priming: Increasing felt security in adolescents with social, emotional and mental health difficulties. *Journal of Applied Developmental Psychology*, 85, 101511. <https://doi.org/10.1016/j.appdev.2022.101511>

**Abstract:** Attachment security priming (ASP) techniques have resulted in many positive outcomes including increased felt-security, an affective attachment state associated with optimal emotional regulation and relationship functioning. To date, however, ASP studies have almost exclusively been conducted with adult samples. This randomised experimental study investigated whether ASP could increase felt-security in adolescents with social, emotional and mental health (SEMH) difficulties. We further examined the security-related themes of the written protocols produced as part of the ASP procedure, allowing for the observation of the cognitions activated by the primes. Two prime groups ( $N = 100$ ,  $M_{age} = 14.5$ ) completed a mental imagery and written priming task; the experimental group visualised a security-inducing attachment figure, whilst the control group visualised a shopping trip. The experimental group reported significantly higher felt-security ( $\eta_p^2 = 0.252$ ) and wrote significantly more words related to attachment-relevant themes in their written protocols, compared to the control group. Findings demonstrate the potential of using ASP techniques to improve felt-security and associated outcomes in adolescents with SEMH difficulties.

10. Yang, P., Coplan, R. J., Zhang, Y., Ding, X., & Zhu, Z. (2023). Assessment and implications of loneliness in Chinese children and early adolescents. *Journal of Applied Developmental Psychology*, 85, 101514. <https://doi.org/10.1016/j.appdev.2023.101514>

**Abstract:** The goal of the present study was to examine the psychometric properties of the Chinese version of the *Solitude and Loneliness Scale* (SolAS) among primary and middle school children, as well as explore links between loneliness, social withdrawal, and indices of well-being. Participants were  $N = 951$  children (509 boys, 442 girls,  $M_{age} = 10.67$  years,  $SD = 1.43$  years) in Shanghai, People's Republic of China, who completed self-report assessments of loneliness, social withdrawal, and indices of well-being. Among the results, the Chinese version of the SolAS displayed a single-factor solution with good psychometric properties and was associated with a wide range of negative psychological outcomes. Loneliness was also found to be partially mediate relations between social withdrawal and children's well-being. Results are discussed in terms of the meaning and implications of loneliness in Chinese children.

11. McGuire, L., Farooq, A., & Rutland, A. (2023). Adolescents' social and moral reasoning about COVID-19 public health behaviors. *Journal of Applied Developmental Psychology*, 85, 101515. <https://doi.org/10.1016/j.appdev.2023.101515>

**Abstract:** Examining the forms of social and moral reasoning adolescents use is important for understanding youth engagement with public health guidelines. The present work examined adolescents' perceptions of social norms and associated reasoning in the COVID-19 context. Participants ( $n = 127$ ,  $M$  age = 17.00,  $SD = 0.71$ ) negatively evaluated other teenagers who broke COVID-19 guidelines and reasoned about harm reduction to justify breaking these rules, but also recognised the importance of protecting mental health as one reason to spend time with friends counter to these rules. Further, adolescents reported that they were more likely to engage in public health behaviors compared to their peers or the average teenager, suggesting a social norm of lower engagement with these guidelines. Together, this evidence documents the importance of considering social norms *and* moral reasoning in framing communication efforts that target adolescents' adherence to public health guidelines.

12. Nouri, K. M., Krauss, S., Ismail, I. A., Arshad, M. M., & Zaremohzzabieh, Z. (2023). Power distance: Moderating effect on positive youth development in Malaysian co-curricular programs. *Journal of Applied Developmental Psychology*, 85, 101520. <https://doi.org/10.1016/j.appdev.2023.101520>

**Abstract:** Few studies have explored the effects of sociocultural factors on program quality in the context of positive youth development (PYD) programs. This is of relevance to countries known for high power distance between youth and adults. The current study explored the moderating effect of perceived power distance orientation on the relationship between youth program quality and the six C's of PYD. A partial least square-structural equation modeling (PLS-SEM) was tested among 436 first-year undergraduate co-curricular program participants from public universities in Malaysia ( $M = 21.192$  years,  $SD = 1.191$  years; 65.6% female). Youth voice, supportive adult relationships, and program engagement positively predicted PYD, while feelings of safety did not. Power distance had no moderating effect on PYD. The findings extend support for the importance of program quality on PYD in non-WEIRD youth program settings and point to the need for further inquiry on PYD program practices in diverse sociocultural settings.

13. Chang, J., Li, Q., Li, Y., Yuan, M., Zhang, T., Wang, G., & Su, P. (2023). Bullying and sleep disturbance are mediators between childhood maltreatment and depressive symptoms. *Journal of Applied Developmental Psychology*, 85, 101516. <https://doi.org/10.1016/j.appdev.2023.101516>

**Abstract:** The relationship between childhood maltreatment and adolescent depression has been recognized; however the indirect mechanisms linking them remain understudied. This study aims to explore whether peer bullying and sleep disturbance mediate this process based on the theory of latent vulnerability. We measured childhood maltreatment, peer bullying victimization, sleep disturbance, and depressive symptoms of secondary students using self-report questionnaires in three schools in Anhui Province, China, in November 2020. After analyzing the

characteristics of 5724 youths with an average age of 13.5 years, we found that depressive symptoms were common among secondary school students (53.0%), and peer bullying, as well as sleep disturbance, partially mediated the effect of depressive symptoms on childhood maltreatment. Targeted interventions such as identifying and preventing childhood maltreatment, conveying anti-bullying messages, and ensuring sufficient sleep will help protect adolescents from depression.

## JOURNAL OF COUNSELING AND DEVELOPMENT

1. Russo, G. M., Smith, S., & Sperandio, K. R. (2023). A meta-analysis of neurofeedback for treating substance use disorders. *Journal of Counseling and Development, 101*(2), 143–156. <https://doi.org/10.1002/jcad.12466>

**Abstract:** A meta-analysis was conducted to assess the efficacy of neurofeedback (NFB) in the treatment of individuals with substance use disorder (SUD) in between-group studies. This study reports findings from the first exhaustive search of the literature on the topic and included articles selected from a total of 58 databases/repositories. Studies were evaluated using Hedge's  $g$  as the effect size measure and were assessed for risk of bias using funnel plot, Fail-Safe  $N$ , and Trim and Fill analysis. Ten studies, containing 30 effect sizes were evaluated to determine the overall efficacy of NFB for decreasing symptoms of SUD ( $N = 397$ ), yielding a mean effect size of  $g = -1.49$  (CI 95 =  $-1.95, -1.03$ ; PI 95 =  $-4.37$  to  $1.39$ ). This meta-analysis provides strong evidence for the efficacy of NFB in treating SUD while also highlighting the value of wholistic client care in SUD treatment.

2. Silas, M. J., & Seward, D. X. (2023). Black women's help-seeking and self-care strategies: A phenomenological exploration. *Journal of Counseling and Development, 101*(2), 157–166. <https://doi.org/10.1002/jcad.12465>

**Abstract:** Within counseling and other mental health disciplines, Black women are underserved, psychologically misdiagnosed, and one of the least researched minoritized cultural populations. We used a hermeneutic phenomenological study to understand the lived experiences of 16 Black women who experienced mental health stress to understand their mental health needs, barriers to mental health care, and help-seeking and self-care practices. Findings included the following four themes: perspectives on oppression on mental health, socio-cultural messages about self-care and help-seeking, perspectives about self-care, and perspectives about professional counseling. Implications for counselors are discussed.

3. Zhu, P., Isawi, D., & Luke, M. M. (2022). A discourse analysis of cultural humility within counseling dyads. *Journal of Counseling and Development, 101*(2), 167–179. <https://doi.org/10.1002/jcad.12457>

**Abstract:** A growing body of empirical literature has substantiated that cultural humility (CH) contributes meaningfully to a variety of therapeutic processes and outcomes. However, no study has concretely described how CH is linguistically and discursively enacted within therapeutic exchanges. Using interactional sociolinguistic discourse analysis, we explored the sociolinguistic strategies along with three dimensions of CH: (a) cultural teachability, (b) lack of cultural arrogance, and (c) relational orientation. Participants included six pairs of cross-racial counseling dyads. Our analyses of the session and follow-up interview transcripts yielded a range of sociolinguistic strategies (i.e., positioning, use of reinforcement, repetition, and use of pronouns) corresponding to the CH dimensions. We discuss clinical, research, and training implications.

4. Tyler, J. M., Thacker, N. E., Outlaw, A. B., & Guffin, J. P. (2023). Lived experiences of utilizing cultural resiliency to navigate traumatic loss. *Journal of Counseling and Development, 101*(2), 180–192. <https://doi.org/10.1002/jcad.12462>

**Abstract:** Extensive literature focuses on grief and loss and individual levels of resiliency, while less research has been done on cultural resiliency. This phenomenological study examined the lived experiences of using cultural resiliency to cope with traumatic loss in 2020. Compounded grief experiences and effects, emotional impacts, learned resiliency, cultural protective factors, and therapy experiences emerged as themes from these narratives. Implications for the field are provided to expand our thinking about ways to decolonize counseling

5. Hilts, D. N., & Liu, Y. (2023). School counselors' perceived school climate, leadership practice, psychological empowerment, and multicultural competence before and during COVID-19. *Journal of Counseling and Development, 101*(2), 193–203. <https://doi.org/10.1002/jcad.12464>

**Abstract:** Following a population-based randomized design, we investigated changes of school counselors' psychological empowerment, multicultural competence, and leadership practice, as well as their perception of school climate from before to during COVID-19. Specifically, school counselors were randomized into two conditions: (a) the pre-COVID-19 condition ( $n = 506$ ) and (b) the current-COVID-19 condition ( $n = 542$ ). Participants in the pre-COVID condition responded to survey items following a retrospective manner based on their experiences between September 2019 and March 2020. We found that participants in the current COVID-19 condition scored significantly higher in psychological empowerment and perceived school climate and lower in multicultural competence and leadership practices compared to the participants in the pre-COVID-19 condition. Regardless of directionality of changes, results supported the significant impacts that the pandemic had on school counselors' roles related to addressing systemic issues. We discussed implications of the results to school counseling practice and school counselor training.

6. Lu, J., Brickham, D., Jaeger, B. J., & Lo, C. (2023). Vocational rehabilitation counselor burnout profiles and mindfulness. *Journal of Counseling and Development, 101*(2), 204–213. <https://doi.org/10.1002/jcad.12461>

**Abstract:** Burnout of vocational rehabilitation (VR) counselors can not only lead to decreased job satisfaction and turnover but also damage the quality of VR services provided to clients with disabilities. It is an ethical obligation for VR counselors to engage in self-care practices to prevent burnout. The current study surveyed 147 VR counselors from two State VR agencies about their current level of burnout and mindfulness related facets. Based on the latent profile analysis, four unique counselor burnout profiles were identified. These were well-adjusted-counselor, type I preserving-counselor, type II preserving-counselor, and disconnected-counselor. Moreover, the results of multivariate analysis of variance tests disclosed that VR counselors with different counselor burnout profiles varied significantly on the mindfulness measure, especially in the facets of acting with awareness and non-judging. The results have unique research and practice implications for the prevention and treatment of burnout of VR counselors.

7. Giordano, A. L., Prosek, E. A., Schmit, E. L., & Schmit, M. K. (2022). Examining coping and nonsuicidal self-injury among adolescents: A profile analysis. *Journal of Counseling and Development, 101*(2), 214–223. <https://doi.org/10.1002/jcad.12459>

**Abstract:** Using a quasi-experimental, cross-sectional design, we examined coping differences among American adolescents who reported a history of nonsuicidal self-injury (NSSI;  $n = 90$ , 25.7%) and those without a history of NSSI ( $n = 260$ , 74.3%). Findings from a profile analysis indicated that a measurable difference in coping profiles may exist between those with a history of NSSI and those without a history of NSSI. Specifically, adolescents who have a history of NSSI appear to rely upon, at higher rates, maladaptive methods of coping, including acting out and rumination, in comparison to adolescents who have never engaged in NSSI, who appear to rely upon adaptive methods of coping, including distraction and self-care, at higher rates. No meaningful difference was apparent between groups on seeking social support as a method of coping. These findings confirm the importance of assessing and enhancing effective coping strategies among adolescent clients who self-injure and potentially utilizing coping skill enhancement strategies as a form of NSSI prevention.

## JOURNAL OF EDUCATIONAL PSYCHOLOGY

1. Marsh, H. W. (2022). Extending the reciprocal effects model of math self-concept and achievement: Long-term implications for end-of-high-school, age-26 outcomes, and long-term expectations. *Journal of Educational Psychology*, 115(2), 193–211. <https://doi.org/10.1037/edu0000750>

**Abstract:** The Reciprocal Effects Model (REM) posits that academic self-concept and corresponding achievement measures are reciprocally related over time. Although there is considerable support for the REM based on short-term, narrowly focused educational accomplishments, little research evaluates the long-term implications of this reciprocal pattern of relations. Using large-scale longitudinal data from the U.S. Educational Longitudinal Survey (16,197 high school year 10 students from 751 schools, followed up through age 26), we found support for the REM (based on math self-concept [MS]) and achievement collected in years 10 and 12), with and without control for covariates (gender, socioeconomic status, school-average socioeconomic status, and reading achievement). We then extend this basic REM model, demonstrating long-term implications of the REM based on total, direct, and indirect (mediated) effects of Year 10 MSC and achievement on: end-of-high-school outcomes (units in mathematics, and highest level of mathematics based on actual school transcripts); postsecondary outcomes at age 26 (educational attainment, completion of the STEM credential, math courses, and advance math units); and long-term expectations (educational, occupational, and STEM job). The total (direct + indirect) effects of year 10 MSC and achievement were statistically significant for all subsequent outcomes, but their influence on postsecondary and long-term expectations were largely mediated by intervening variables. However, consistent with REM logic, MSC effects were mediated in part via math achievement, and math achievement effects were mediated in part via MSC. Hence, the extended REM design provides an ideal basis for evaluating the long-term effects of MSC.

2. Geary, D. C., Hoard, M. K., Nugent, L., & Ünal, Z. E. (2023). Sex differences in developmental pathways to mathematical competence. *Journal of Educational Psychology*, 115(2), 212–228. <https://doi.org/10.1037/edu0000763>

**Abstract:** The study tested the hypothesis that there are sex differences in the pathways to mathematical development. Three-hundred and 42 adolescents (169 boys) were assessed in various mathematics areas from arithmetic fluency to algebra across 6th to 9th grade, inclusive, and completed a battery of working memory, spatial, and intelligence measures in middle school. Their middle school and ninth grade teachers reported on their in-class attentive behavior. There were no sex differences in overall mathematics performance, but boys had advantages on all spatial measures ( $d_s = .29$  to  $.58$ ) and girls were more attentive in classroom settings ( $d_s = -.28$  to  $-.37$ ). A series of structural equation models indicated that sixth- to ninth-grade mathematical competence was influenced by a combination of general cognitive ability, spatial abilities, and in-class attention. General cognitive ability was important for both sexes but the spatial pathway to mathematical competence was relatively more important for boys and the in-class attention pathway for girls.

3. Li, T., Quintero, M., Galvan, M., Shanafelt, S., Hasty, L. M., Spangler, D. P., Lyons, I. M., Mazzocco, M. M. M., Brockmole, J. R., Hart, S. A., & Wang, Z. (2023). The mediating role of attention in the association between math anxiety and math performance: An eye-tracking study. *Journal of Educational Psychology, 115*(2), 229–240. <https://doi.org/10.1037/edu0000759>

**Abstract:** Math anxiety (MA) and math performance are generally negatively correlated (Barroso et al., 2021; Namkung et al., 2019). However, the mechanisms underlying this negative association remain unclear. According to the attentional control theory (ACT; Eysenck et al., 2007), anxious individuals experience impaired attentional control during problem solving, which compromises their performance on cognitive tasks. In a sample of 168 elementary and middle school students, the current study used an eye-tracking approach to investigate whether math-anxious students exhibit deficits in their attentional control during a math problem solving task and whether such attentional control deficits account for the negative association between MA and performance on this math task. Consistent with the ACT, we found that students with higher MA were more likely to engage attention to both task-relevant and task-irrelevant distractors during problem solving, and their enhanced attention to these distractors was associated with their impaired performance on the math task. These findings suggest that the MA-related math performance deficit is partly mediated by impaired attentional control, which is indicated by the maladaptive attentional bias toward distracting information during math problem solving..

4. Ding, M., Byrnes, J., & Ke, X. (2023). Rethinking the role of “quality instruction” in predicting algebraic learning within an opportunity-propensity framework: An exploratory cross-cultural study. *Journal of Educational Psychology, 115*(2), 241–266. <https://doi.org/10.1037/edu0000767>

**Abstract:** This exploratory study examined whether instruction aligned with the Institute of Education Sciences recommendations (i.e., use of worked examples, representations, deep questions) predicts student learning of early algebra, particularly inverse relations, in elementary classrooms. Instructional quality was determined through an opportunity-propensity analysis of cross-cultural data ( $N = 569$ ) from the United States and China, which showed that teaching played a stronger role in student learning than previously reported. Results from structural equation modeling indicated that teaching quality—especially teachers’ use of deep questions—had both direct and indirect effects (through prior knowledge) on student learning, which together demonstrated greater predictive power than what was reported in previous studies. Specifically, direct path results showed that instructional quality, rather than teacher characteristics, played a more important role in predicting student learning. Indirect effects showed that instructional quality, mediated through students’ prior knowledge, predicted the most about students’ mathematics achievement. Taken together, the results of the analysis provided strong evidence that implementation of worked examples, representations, and deep questions were positively related to student learning in early algebra. Hierarchical linear regression confirmed these findings but indicated that teaching quality in the current data explained more additional variance in “correctness” than “inverse understanding” for student learning. These findings suggest that the kind of instruction examined in prior opportunity-propensity studies had a weaker effect because it did not align with the Institute of Education Sciences

recommendations. Findings also shed light on the extent to which classroom instructions are better at developing students' algebraic readiness.

5. Rau, M. A., & Beier, J. P. (2023). Exploring the effects of gesture-based collaboration on students' benefit from a perceptual training. *Journal of Educational Psychology*, 115(2), 267–289. <https://doi.org/10.1037/edu0000774>

**Abstract:** Collaboration enhances conceptual learning with multiple representations. However, learning with multiple representations also involves perceptual learning processes. These often-overlooked learning processes are the target of perceptual trainings, which expose students to short nonverbal tasks so that students can induce visual patterns across representations. Given the focus of perceptual trainings on nonverbal learning, we investigate the impact of collaboration via gestures without allowing students to talk. On the one hand, gesture-based collaboration may be effective because a partner's gestures may direct students to meaningful visual features. On the other hand, gesture-based collaboration might be ineffective because gesturing may trigger verbal thought, which has been shown to detract from perceptual processing in prior research on the verbal overshadowing effect. We investigated this question in a quasi-experiment with  $N = 438$  chemistry undergraduate students. Students either worked on a perceptual training individually or collaborated using only gestures. Posttest data show an advantage of students working individually. Mediation analysis based on log data revealed a positive mechanism of collaboration enhancing learning gains by reducing students' errors during the training. Gesture analysis showed that students used gestures to nonverbally explain their thinking and that representational gestures reduced error rates whereas other types of gestures did not. This might have detracted students from perceptual processing of the stimuli, creating a “nonverbal overshadowing” effect analogous to the verbal overshadowing effect. Altogether, our findings identify boundary conditions of the benefits of collaboration while also revealing possible pathways for future research to explore perceptual learning in social situations.

6. Lazarides, R., Schiefele, U., Hettinger, K., & Frommelt, M. C. (2023). Tracing the signal from teachers to students: How teachers' motivational beliefs longitudinally relate to student interest through student-reported teaching practices. *Journal of Educational Psychology*, 115(2), 290–308. <https://doi.org/10.1037/edu0000777>

**Abstract:** Theoretical models have suggested that teachers' motivational beliefs relate to various student academic outcomes through particular teaching practices, and that teachers' motivational beliefs and teaching practices are reciprocally interrelated. However, these relations have rarely been tested in longitudinal work. We extend previous research by (a) examining whether mathematics teachers' self-efficacy and interest longitudinally relate to student mathematics interest through student-reported teaching practices (classroom management, socioemotional support, cognitive activation) and by (b) testing reciprocal relations between teachers' motivational beliefs and student-reported teaching practices. Participants were 50 mathematics teachers (66.0% female) and their  $n = 959$  students (47.9% girls;  $M_{\text{age}} = 14.20$ ,  $SD = .62$ ). Longitudinal multilevel models revealed different paths from teachers' motivational beliefs to students' interest: a “behavioral management path” from teacher self-efficacy for classroom management (Time 1) to student interest (Time 3) through student-perceived classroom management (Time 2), an “affective support

path” from teacher self-efficacy for engagement (Time 1) to student interest (Time 3) through socioemotional support (Time 2), and a “cognitive instruction path” from teacher educational interest (Time 1) to student interest (Time 3) through cognitive activation (Time 2). We did not find reciprocal relations between teachers’ motivational beliefs and their teaching practices. Our findings suggest that different dimensions of teachers’ motivational beliefs are associated with different teaching practices, which in turn relate to student motivation.

7. Helm, F., Wolff, F., Möller, J., Zitzmann, S., Marsh, H. W., & Dicke, T. (2023). Individualized teacher frame of reference and student self-concept within and between school subjects. *Journal of Educational Psychology*, *115*(2), 309–329. <https://doi.org/10.1037/edu0000737>

**Abstract:** Perceived individualized teacher frame of reference (students’ perception that teacher feedback considers students’ effort and former achievements) assumingly positively affects academic self-concept, especially for low-performing students. Following Dimensional Comparison Theory, individualized teacher frame in one school subject might negatively affect self-concept in another subject. Using data of  $N = 34\,771$  students (PISA 2000 study) we examined relations between perceived individualized teacher frame of reference and self-concepts in the subjects German and mathematics. Perceived individualized teacher frame of reference positively related to self-concept in the corresponding subject and negatively to self-concept in the no corresponding subject. Student achievement level moderated the positive relation within subjects.

8. Gehlbach, H., Mascio, B., & McIntyre, J. (2023). Social perspective taking: A professional development induction to improve teacher–student relationships and student learning. *Journal of Educational Psychology*, *115*(2), 330–348. <https://doi.org/10.1037/edu0000762>

**Abstract:** When teachers struggle to understand students’ thoughts, feelings, and motivations, the teacher–student relationship typically suffers. Better social perspective taking—understanding the thoughts, feelings, and motivations of others—should facilitate these relationships. In this preregistered field experiment, teachers ( $N = 105$ ) from a kindergarten-to-ninth-grade charter school network participated in a new social perspective-taking induction aimed at helping them better understand their most perplexing students. Regression analyses showed that the induction caused treatment teachers to put more effort into understanding these students (Cohen’s  $d = .51$ ) and perceive more positive (Cohen’s  $d = .41$ ) and less negative (Cohen’s  $d = -.52$ ) relationships with these students. Meanwhile, students of treatment teachers perceived more positivity in their relationships with their teachers (Cohen’s  $d = .82$ ) and obtained higher course competency scores (akin to grades; Cohen’s  $d = .45$ ). This preregistered study complements exploratory, laboratory-based studies with empirical evidence from real-world classroom settings. Implications of this research center on the promise of social perspective taking to improve teacher–student relationships and other important student outcomes.

9. Pan, B., Garandau, C. F., Li, T., Ji, L., Salmivalli, C., & Zhang, W. (2023). The dynamic

associations between social dominance goals and bullying from middle to late childhood: The moderating role of classroom bystander behaviors. *Journal of Educational Psychology*, 115(2), 349–362. <https://doi.org/10.1037/edu0000776>

**Abstract:** Social dominance goals have been conceptualized as orientations toward powerful and prominent positions in the peer group. Although previous studies have identified social dominance goals as one of the main motivations behind bullying, few studies have disentangled the time-invariant (average level) from the time-varying (year-to-year) effects of social dominance goals. The present study simultaneously examined the time-invariant and time-varying associations between social dominance goals and bullying, along with the moderating effects of classroom bystander behaviors (reinforcing the bully and defending the victim). A Chinese sample of third graders ( $n = 615$ , 46.5% girls,  $M_{\text{age}} = 9.29$  years,  $SD = 0.40$ ) and fourth graders ( $n = 559$ , 44.9% girls,  $M_{\text{age}} = 10.31$  years,  $SD = 0.40$ ) in four schools was surveyed three times (in May 2018, May 2019, and June 2020). Social dominance goals and bullying were self-reported. Classroom reinforcing and defending were assessed by averaging peer-reported reinforcing and defending scores for each classroom at each time point. Three-level models revealed significant time-variant and time-invariant effects of social dominance goals on bullying in classrooms with relatively low levels of defending behavior. These results suggest that both persistent and temporary social dominance goals might motivate children to engage in bullying, but peers' defending behaviors mitigate this tendency.

10. Laninga-Wijnen, L., van den Berg, Y. H. M., Garandeau, C. F., Mulder, S., & de Castro, B. O. (2023). Does being defended relate to decreases in victimization and improved psychosocial adjustment among victims? *Journal of Educational Psychology*, 115(2), 363–377. <https://doi.org/10.1037/edu0000712>

**Abstract:** School bullying is a clear violation of children's rights to a safe education and is a major concern among school professionals and parents. Many antibullying interventions focus on enhancing peer defending of victims to combat bullying and to promote victims' psychosocial functioning. However, longitudinal studies on the effects of being defended on (a) diminishing victimization and (b) enhancing victims' psychosocial adjustment are lacking, and the role of the broader peer context has been largely unexplored. Therefore, this study examined whether being defended decreases victimization and improves victims' psychosocial adjustment, and whether defending peer norms moderate these effects. Data were derived from a nationwide Dutch study on the effectiveness of antibullying interventions, with  $N = 5,415$  students ( $M_{\text{age}} = 9.93$ ; 48.3% girls) from 238 classrooms (54.2% control classrooms) in 68 elementary schools. Findings indicate that victims with at least one defender at the start of the school year (Time 1) experienced higher feelings of belonging at the end of the school year (Time 2) compared with nondefended victims, but experienced lower feelings of belonging compared with nonvictims. Defended victims did not differ from nondefended victims in self-esteem, depressive symptoms, and severity of victimization at Time 2. Nonvictims were significantly better adjusted than defended and nondefended victims regarding these outcomes. Descriptive and popularity norms for defending did not moderate the links between being defended and victims' adjustment and severity of victimization at Time 2. Thus, being defended only partly relieves victims' plight, irrespective of how normative defending behaviors are in classrooms.

## JOURNAL OF HUMAN VALUES

1. Kar, S., Tripathi, S., & Sahoo, D. K. (2022). Human Value-Oriented Management: A Meta-Synthesis of Contributions by Professor S. K. Chakraborty. *Journal of Human Values*, 29(1), 8–23. <https://doi.org/10.1177/09716858221108769>

**Abstract:** The role of Indian ethos in management practices is explored by several management scholars and practitioners. Professor Sitangshu Kumar Chakraborty (popularly known as Professor S. K. Chakraborty, hereinafter referred to as SKC in this article) is one of the pioneering scholars of human value-oriented management practices and has made significant contributions in linking the management knowledge and practices to classical Indian ethos and Vedantic wisdom. In today's technologically advanced and economically fast-paced world, there is a rising concern about falling human values in work and in personal life, which must be addressed to understand the deeper meaning of work and a higher purpose in life. SKC's innovative approaches to human values in management education for practising managers are quite significant in this regard. This article is a sincere attempt to explore and synthesize the contributions of SKC to the human value-oriented management that evolved around the fundamental pillars of classical Indian ethos and Vedantic wisdom and the implication of those values for today's managers to realign their managerial practices. This article is based on a bibliometric analysis of published articles drawn from secondary sources and is a tribute to the life and legacy of SKC on human value-based management.

2. Yadav, V. R., Dasgupta, S., & Kumar, B. (2022b). B. R. Ambedkar on the Practice of Public Conscience: A Critical Reappraisal. *Journal of Human Values*, 29(1), 24–32. <https://doi.org/10.1177/09716858221109318>

**Abstract:** This article discusses the importance of 'public conscience' in B. R. Ambedkar's political thought. Ambedkar consistently defended public conscience as a democratic value in his writings and speeches. Public conscience referred to collective responsibility, social justice and the public deliberation of what constitutes the social good. Ambedkar consistently expressed the unequivocal belief that public conscience would bring about a moral transformation in Indian society through a collective ethical stance against all forms of social oppression. He conceptualized public conscience as a method by which a democratic and ethical Indian society could come about and flourish. This article interrogates his ideas concerning public conscience through a detailed reading of his works, focusing particularly on his 1943 speech, *Ranade, Gandhi and Jinnah*.

3. Cheruvalath, R. (2022). Artificial Intelligent Systems and Ethical Agency. *Journal of Human Values*, 29(1), 33–47. <https://doi.org/10.1177/09716858221119546>

**Abstract:** The article examines the challenges involved in the process of developing artificial ethical agents. The process involves the creators or designing professionals, the procedures to develop an ethical agent and the artificial systems. There are two possibilities available to create artificial ethical agents: (a) programming ethical guidance in the artificial Intelligence (AI)-equipped machines and/or (b) allowing AI-equipped machines to learn ethical decision-making by observing humans. However, it is difficult to fulfil these possibilities due to the subjective nature of ethical

decision-making. The challenge related to the developers is that they themselves lack training in ethical skills. The creators who develop an artificial ethical agent should be able to foresee the ethical issues and have knowledge about ethical decision-making to improve the ethical use of AI-equipped machines. The suggestion is that the focus should be on training professionals involved in the process of developing these artificial systems in ethics rather than developing artificial ethical agents and thereby attributing ethical agency to it.

4. Kini-Singh, A. (2022). From Anthropology to Artistic Practice: How Bricolage Has Been Used in the Twentieth Century as an Ideal Model of Engagement with the World. *Journal of Human Values*, 29(1), 48–57. <https://doi.org/10.1177/09716858221130130>

**Abstract:** The aim of this article is to return to the concept of *bricolage* as theorized in 1962 by the French anthropologist Claude Lévi-Strauss and examine its presence and utility in the art and architectural history of the twentieth century. While Lévi-Strauss was the first theorist to present *bricolage* as an analogy for the creation of mythical thought among indigenous cultures, the concept has seen a wide range of conceptual, methodological and practical applications across different fields, including design, visual arts, urban planning and the built environment. This article will examine the applicability of *bricolage* as a technical metaphor for the creative process and its relevance to artistic creation by tracing its trajectory over the course of the twentieth century. It will evaluate the significance of objects and events of ‘everyday life’ in the creative practices of contemporary artists, and draw attention to the emerging role of the architect as *bricoleur* or improviser, to conclude that it was the art of the ‘ordinary’ that gave creative inspiration to twentieth-century artists and architects to engage with the materiality and past experiences of the world.

5. Carvalho, F. K., & Mulla, Z. R. (2022). Love Is Not a Panacea: Moderating Role of Followers’ Attachment Dimensions on the Effectiveness of Agape-Based Leadership. *Journal of Human Values*, 29(1), 58–74. <https://doi.org/10.1177/09716858221133148>

**Abstract:** Love (in the agape form) forms the foundation of most leadership concepts and has been ignored in research. We respond to the debate on universal applicability of leadership forms by bringing followers into the spotlight through our examination of the interactive influence of loving (agape-based) and non-loving (non-agape-based) leadership styles and followers’ attachment dimensions (self-model and other-model) on follower outcomes. Two hundred and eighty-two business management students worked in teams on a task under the direction of leaders who demonstrated agape-based behaviours and leaders who demonstrated non-agape-based behaviours in a laboratory experiment. Agape-based leadership was positively related with follower satisfaction with the leader, team commitment and perception of leaders’ effectiveness. Further, followers’ attachment dimensions (self- and other-model) moderated the relationship between agape-based leadership and follower work attitudes, such that the relationship was positive for followers with a negative self-model and for followers with a positive other-model, and the relationship was negative for followers with a negative other-model. We provide a practical set of tools for demonstrating agape leadership behaviours which are useful for educators and organizations. We suggest that leaders must alter their leadership style depending on their followers’ attachment dimensions.

6. Sinha, R. M., & Srivastava, S. (2022). Towards the Theory of an Entrepreneurial Firm from the Lens of the Bhagavad Gita. *Journal of Human Values*, 29(1), 75–84. <https://doi.org/10.1177/09716858221134430>

**Abstract:** Management research has attracted a plethora of research intending to optimize performance within and outside firms. We have seen plenty of progress in various dimensions; however, we also notice domains where the struggle still exists. This work tries to develop a theory of a hypothetical firm that goes beyond the current theories and takes inspiration from the texts of the Bhagavad Gita. We look at the theory of a hypothetical firm through the lens of the Bhagavad Gita. Precisely, this work theorizes about the three aspects of a firm: leadership, governance and motivation. Governance provides a structure to business management; leaderships play a pivotal role in converting inputs to desired outputs; and motivation acts as a catalyst in any process that builds and runs the firm. Moreover, this work integrates the understanding of certain *shlokas* of the Bhagavad Gita for theorizing.

## JOURNAL OF HUMANISTIC PSYCHOLOGY

1. McInerney, R. G., Long, K., & Stough, R. (2021). The Mobile Thriving Respite With and for the Street Community. *Journal of Humanistic Psychology*, 63(1), 10–35. <https://doi.org/10.1177/00221678211046757>

**Abstract:** We report on our work with the street community of Pittsburgh, specifically, a community-based action initiative we call the *Mobile Thriving Respite* (Institutional Review Board approval was obtained from our university). For 5 years, student advocate ethnographers from Point Park University have gathered data (e.g., long- and short-term interviews, participant-observations generating fieldnotes). The data revealed and supported the need for *thriving* beyond *surviving* homelessness. The data endorsed the creation of the mobile thriving respite. In the first part of this work, we will discuss some critical concepts regarding homelessness as a phenomenon and then argue that while surviving as enduring is necessary, there are some for whom survival is a perpetual, lethal state of being. We will discuss the theoretical foundations to the respite and offer researchers' ethnographic accounts of the respite's process and progress (We had to temporarily end the respite during the Covid-19 pandemic. To date, the respite has returned with "pop up" events outside at various locations). We will outline how the mobile thriving respite is a praxis as site of resistance as well as an emergent strategy, and an instantiation of *communitas*. We will then revisit surviving as collectively bearing witness and testifying to the lived experiences of those living outside.

2. Grant, A. S. (2019). Will Human Potential Carry Us Beyond Human? A Humanistic Inquiry Into Transhumanism. *Journal of Humanistic Psychology*, 63(1), 36–50. <https://doi.org/10.1177/0022167819832385>

**Abstract:** Humanism has long celebrated the human, including those qualities that make us uniquely human, as well as the vastness of human potential. Humanistic psychology has further sought to understand what it means to be human and what conditions facilitate human flourishing and the unfolding of potential. Transhumanism, a movement advocating technologically aided human enhancements, represents a new and rapidly growing manifestation of humanistic ideals. Transhumanism identifies physical human limitations as limitations on potential and seeks to remove all such limits, understanding and often celebrating the fact that such changes could make us no longer recognizably human. Transhuman aims include technologically aided radical human enhancements in longevity, health, intelligence, emotion, morality, and more. While the implications of transhumanism are being widely debated within fields such as philosophy and religion, contributions from psychology are scarce. With its wealth of wisdom into the heart of issues around what it means to be human, humanistic psychology is particularly well-suited to exploring transhuman issues. In addition to making a case for the involvement of humanistic psychology in transhumanism, the current work explores several specific areas in which humanistic psychology may be fruitfully applied, such as issues of potential and agency.

3. Kaufman, S. B. (2018). Self-Actualizing People in the 21st Century: Integration With Contemporary Theory and Research on Personality and Well-Being. *Journal of Humanistic Psychology*, 63(1), 51–83. <https://doi.org/10.1177/0022167818809187>

**Abstract:** More than 70 years ago, Maslow put forward an integrated theory of human motivation that still captures the public imagination. Still, integration with modern theory and research remains elusive. The current study aims to fill this gap in the psychological literature, linking Maslow’s theory to contemporary theory and research on personality and well-being. Toward this aim, the new 30-item “Characteristics of Self-Actualization Scale (CSAS)” was developed. Scale validation showed that 10 characteristics of self-actualizing people as proposed by Maslow load on a general factor of self-actualization and demonstrate external validity. Those reporting more characteristics of self-actualization were more motivated by growth, exploration, and love of humanity than the fulfillment of deficiencies in basic needs. The characteristics of self-actualization were also associated with greater well-being across a number of indicators of well-being, including greater life satisfaction, self-acceptance, positive relations, environmental mastery, personal growth, autonomy, purpose in life, and self-transcendent experiences. Self-actualization scores also predicted work-related outcomes and creativity across multiple domains of achievement. The results provide support for Maslow’s proposed characteristics of self-actualization and basic motivational framework, bringing the concept of self-actualization so frequently discussed by the founding humanistic psychologists firmly into the 21st century.

4. Greene, E. (2019). The Mental Health Industrial Complex: A Study in Three Cases. *Journal of Humanistic Psychology*, 63(1), 84–102. <https://doi.org/10.1177/0022167819830516>

**Abstract:** Among the many sites on the battleground of the United States in which racism and classism rage is the all-too-overlooked mental health industrial complex. Over the past four decades, the mental health industrial complex has used the biomedical explanation for mental suffering. This focus on diagnoses that result from problems of the brain and not from social factors has contributed to an exponential increase of consumed medications and total revenue earned from the mental health and addiction services provided in the United States. Moreover, this specific ontology of subjectivity—that humans are solely defined by their material brains—helps serve the interests of the dominant hegemony. It is the assertion of this article that today as persons are conditioned to understand mental illness as a result of a purely individual problem, they become unaware of the ways in which the structural problems of race and class contribute to their mental illness. As a therapist who works with marginalized populations, I have seen firsthand how the biomedical model can be used to reinforce the illnesses that it aims to treat. The following article will illustrate the complex dynamics of the mental health industrial complex by way of analyzing three case studies of Black, male patients who I treated while working at a mental health facility in the Northeastern United States.

5. Kinsella, M. (2018). Exercising Leadership Within the Therapeutic Alliance: An Autonomy-Grounded Perspective. *Journal of Humanistic Psychology*, 63(1), 103–125. <https://doi.org/10.1177/0022167818805568>

**Abstract:** Leadership within therapeutic practice encompasses the capacity to formulate and accomplish strategies that are mindful of one’s ethical duty toward fostering clients’ autonomy. Here, clinical practitioners’ role as “leader” involves not

only sustaining the momentum of the therapeutic alliance, but also contributing toward the *purpose* of this alliance. The very telos of therapy is to create an environment that facilitates clients' ability to move toward autonomy: to lead clients, paradoxically, beyond a need to engage in the clinical relationship. Here, fostering client autonomy lies at the heart of therapeutic leadership because the experience of autonomy—which is developed interpersonally—expresses itself in a state of internal clarity and cohesiveness through which clients are more capable of exercising control over the trajectory of their life beyond the cessation of the therapeutic relationship. Three characteristics of the therapeutic leader are important in this regard: discernment, determination, and humility. Each of these are most fully exercised when the practitioner possesses a commitment to ensuring an ethic of collaboration and egalitarianism, underpinned by therapeutic “presence.”

6. Look, A. (2018). The Face of Grief in Foster Care. *Journal of Humanistic Psychology*, 63(1), 126–139. <https://doi.org/10.1177/0022167818812723>

**Abstract:** Foster care is a necessary institution to protect some of this county's most vulnerable children. However, it also often re-traumatizes children who have already undergone significant trauma. In this article, I will provide a synopsis of some current statistics about foster care and the experience of the foster care system. Furthermore, I will provide an overview of a handful of relevant grief theories and expend a call to those within the field to develop more unique grief theories and interventions for children in the foster care system.

7. Simington, J. A. (2019). Evaluating Trauma Education Designed Within a Spiritual Framework. *Journal of Humanistic Psychology*, 63(1), 140–155. <https://doi.org/10.1177/0022167819846728>

**Abstract:** The invasion of trauma images from the past into the present can lead to dissociation. Jung recognized the soul fragmentation that can result from dissociation. Researchers reporting an inverse correlation between spiritually focused interventions and posttraumatic stress disorder (PTSD) suggest that understanding the spiritual context of trauma might add prognostic value. The spiritually based strategies frequently requested by those with PTSD include imagery and traditional/cultural healing. Research demonstrates that offering the brain right hemisphere aligning processes such as therapeutic art and imagery can provide neurological and emotional release and allow healing to happen. Acknowledging that the research calls for exploration of the most beneficial ways to address the spiritual and soulful manifestations of trauma, a Trauma Recovery Certification training program was designed to address the effects of trauma on the human spirit and to provide right hemisphere aligning strategies for healing the soul fragmentation that can result from trauma and dissociation. Qualitative and quantitative program evaluation results indicate that graduates of the Trauma Recovery Certification training advance their knowledge of the relationships between trauma and the human spirit and heal their own unhealed spiritual concerns and soul fragmentation resulting from their previous traumas.

## SCANDINAVIAN JOURNAL OF EDUCATIONAL RESEARCH

1. Gökteş, Y. (2021). Evaluating Whether Flipped Classrooms Improve Student Learning in Science Education: A Systematic Review and Meta-Analysis. *Scandinavian Journal of Educational Research*, 67(1), 1–19. <https://doi.org/10.1080/00313831.2021.1983868>

**Abstract:** This study aims to determine the effectiveness of flipped classrooms in science education through the use of systematic review and meta-analysis. A total of 64 studies were analyzed by scanning the following databases: Web of Science, Eric, Taylor & Francis, and Education Full Text (EBSCO). Of the studies analyzed, 18 were selected for meta-analysis. Since the first study publication in 2013, the use of flipped classroom method in science education has since become prevalent. This study reveals that quantitative approaches were used as a principal research method, university students were preferred as primary participants, and that the studies reviewed mainly examined classrooms in the context of chemistry courses. As a result of meta-analysis, a meaningful effect size pertaining to student achievement was revealed, which showed favor towards the use of flipped classrooms (Hedges'  $g = 0.625$ , 95% CI [0.342, 0.908],  $p < 0.001$ ).

**Keywords:** Flipped classroom, inverted classroom, science education, systematic review, meta-analysis

2. Sundqvist, C., Björk-Åman, C., & Ström, K. (2021). Co-Teaching During Teacher Training Periods: Experiences of Finnish Special Education and General Education Teacher Candidates. *Scandinavian Journal of Educational Research*, 67(1), 20–34. <https://doi.org/10.1080/00313831.2021.1983648>

**Abstract:** Co-teaching is highlighted as an opportunity to develop inclusive practices. This study aimed to investigate how teacher candidates experienced co-teaching during supervised teacher training periods. Data were collected through pair interviews and questionnaires ( $N = 22$ ). The analysis was conducted through thematic analysis. Results show that the participants experienced both possibilities and challenges. Generally, they experienced planning and communication as time-consuming but as an opportunity to share ideas and knowledge. They experienced shared responsibilities and equal roles, but in some cases, inequalities appeared. Furthermore, they saw co-teaching as a way to meet diverse needs in the class, but some of the participants had some concerns regarding meeting the individual needs of pupils with individual educational plans (IEPs). Despite challenges, the results show that co-teaching is a valuable element of teacher training. Implications for teacher education are discussed.

**Keywords:** Co-teaching, collaboration, teacher training, teacher candidates, inclusion.

3. Paloniemi, A., Pulkkinen, J., Kärnä, E., & Björn, P. M. (2021). The Work of Special Education Teachers in the Tiered Support System: The Finnish Case. *Scandinavian Journal of Educational Research*, 67(1), 35–50. <https://doi.org/10.1080/00313831.2021.1983649>

**Abstract:** This study investigated primary school special education teachers' (SETs') ( $N = 283$ ) conceptions on their work descriptions and uses of pedagogical documents after a reform in the national support framework. The respondents of this survey reported working mostly in Tiers 1 and 2 when all their tasks (instruction, consultation, and managerial tasks) were considered. The responsibilities of the SETs were, however, more clearly defined in Tier 3. The SETs allocate their work autonomously, but their work description is related to their workload. Clarifications in work descriptions and further elaboration of school's tiered support functions, emphasizing collaborative practices, are suggested.

**Keywords:** Tiered support, special education teachers, workload, pedagogical documents, survey

4. Klefbeck, K. (2021). Educational Approaches to Improve Communication Skills of Learners with Autism Spectrum Disorder and Comorbid Intellectual Disability: An Integrative Systematic Review. *Scandinavian Journal of Educational Research*, 67(1), 51–68. <https://doi.org/10.1080/00313831.2021.1983862>

**Abstract:** Enabling functional communication is critical for accessibility in school and society for all pupils. This systematic review analyzed the results of educational studies on developing communication skills for learners ( $\leq 21$  years) with autism spectrum disorder and comorbid intellectual disability. Systematic database searches were conducted using ERIC, MEDLINE, and PsycINFO. Seventeen of 208 peer-reviewed articles in English published between 1990 and 2020 met the inclusion criteria. The analysis identified various educational approaches, ranging from using alternative linguistic tools (e.g., signs and gestures) to physical devices (e.g., visual cues), and also examined instructional approaches used by educators. The synthesis shows heterogeneity of methods used, resulting in weak evidence for any model's impact on this pupil group's communication skills development and concomitant possibilities to affect their school situation. In addition, the analysis demonstrated that personnel performance crucially affects children's opportunities to learn regardless of the approach used. Directions for future research are concluded.

**Keywords:** Autism, communication skills, educational approaches, empowerment, intellectual disability, special educational needs

5. Wiberg, M., & Rolfsman, E. (2021). Students' Self-reported Background SES Measures in TIMSS in Relation to Register SES Measures When Analysing Students' Achievements in Sweden. *Scandinavian Journal of Educational Research*, 67(1), 69–82. <https://doi.org/10.1080/00313831.2021.1983863>

**Abstract:** The overall aim of this study was to examine the different self-reported students' socioeconomic status (SES) measures in the Trends in Mathematics and Science Study (TIMSS) in comparison to national SES measures obtained from Swedish official registers. A further aim was to determine if the same conclusions could be drawn if different student measures were used to define SES when modelling the students' TIMSS mathematics achievement. The overall results showed that the choice of SES measures matters. The home educational resource index and books at home from the TIMSS data base were good indicators of SES. We conclude that when one has access to SES information from official registers it is recommended to

use it because these measures have less missing information compared with the TIMSS variables.

**Keywords:** Socioeconomic status, TIMSS achievement, self-reported measures, register-reported measures

6. Jensen, M., Van Der Wel, K. A., & Bråthen, M. (2021). Adolescent Mental Health Disorders and Upper Secondary School Completion – The Role of Family Resources. *Scandinavian Journal of Educational Research*, 67(1), 83–96. <https://doi.org/10.1080/00313831.2021.1983864>

**Abstract:** This article investigates the role of socioeconomic family resources in modifying the relationships with upper secondary school completion (SSC) for three mental health dimensions, i.e., externalizing, internalizing and substance use disorders. Using data from administrative registers, we follow a cohort in Norway born in 1996 into early adulthood. We find that having a mental health disorder in adolescence was associated with 12–17 percentage points lower SSC rate after adjustment for demographic and household factors, comorbidity and educational performance. In girls, high family income attenuated the negative relationships between all three mental health dimensions and SSC, while in boys, this was true only for substance use disorders. The paper concludes that access to family socioeconomic resources “buffers” the negative impact of mental health disorders on SSC, but less so in boys, contributing to aggravate social and health-related inequalities in SSC.

**Keywords:** Adolescent, mental health disorders, upper secondary school completion, socioeconomic status, Norwegian Patient Registry, the compensatory advantage model, Blaxter hypothesis

7. Eccles, A. M., Qualter, P., Madsen, K. R., & Holstein, B. E. (2021). Loneliness and Scholastic Self-Beliefs among Adolescents: A Population-based Survey. *Scandinavian Journal of Educational Research*, 67(1), 97–112. <https://doi.org/10.1080/00313831.2021.1983865>

**Abstract:** Loneliness has previously been linked to cognitive and attentional bias, and such biases may have a detrimental impact on perceived scholastic self-beliefs. Little is known about the relationship in school-aged adolescents. The current study examined the association between loneliness and scholastic self-beliefs in a nationally representative Danish sample of adolescents (aged 11-, 13- and 15 years,  $n = 3815$ , collected in 2014 by the Health Behaviour in School-aged Children study (HBSC)). Through binary logistic regressions, results demonstrated that higher levels of loneliness, measured by a single item and a composite score, were associated with poorer self-reported achievement perception, higher feelings of school dissatisfaction, and greater feelings of school pressure. Results also suggested gender played a moderating role. The current study highlights the importance of loneliness for scholastic self-beliefs, and provides a novel insight by utilising distinct loneliness measures. The implications, in relation to research and practise, are discussed.

**Keywords:** Loneliness, one-item and composite-score of loneliness measurement, HBSC, adolescents, scholastic self-beliefs

8. Bladh, D., & Nordvall, H. (2021). Lines of Reasoning When Designing Education for Municipal Councillors in Sweden. *Scandinavian Journal of Educational Research*, 67(1), 113–125. <https://doi.org/10.1080/00313831.2021.1983866>

**Abstract:** Although elected representatives play an imperative role for the functioning of a formal democracy, educational research has so far not given much attention to the education and training offered to this group of people. A democratic dilemma may arise in the design and organisation of this education that relate to local governance and policy processes. This paper investigates introductory education that Swedish municipalities offer to municipal councillors and explore the reasons behind its design. The study draws on a comprehensive set of empirical material, consisting of educational programmes from 261 Swedish municipalities and interviews with municipal representatives. The results suggest three different lines of reasoning, denoted system-oriented, relationship-oriented, and market-oriented lines, behind the design of this education. The importance of these results can be considered in relation to previous findings that a strained relation exist between elected representatives and local administrations in Sweden.

**Keywords:** Educational design, lines of reasoning, municipal councillors, Dichotomy-Duality Model

9. Kess, R., & Puroila, A. (2021). Narratives from the North: Early Childhood Teachers' Narrative Identities in Place. *Scandinavian Journal of Educational Research*, 67(1), 126–139. <https://doi.org/10.1080/00313831.2021.1983867>

**Abstract:** This study focuses on early childhood teachers' narrative identities in the North, based on the concept of narrative identities in place. The aim of the study is to deepen understanding of early childhood teachers' work in the culturally diverse North by approaching the teachers' narrative identities as closely connected with place. The research question guiding this study is: *How do early childhood teachers from the culturally diverse North narrate their identities?* The research material consisted of 12 peer interviews (24 teachers). The findings show that early childhood teachers' narrative identities in place are shaped in between three crucial dimensions: meaningful places, temporality, and (un)belonging to multiple communities. The study contributes to international research on teachers' narrative identities, place-based education, and early childhood education both theoretically and methodologically. The findings of the study challenge teachers, teacher educators, and policymakers to recognise the significance of place for teachers' identities.

**Keywords:** Narrative identity, place, early childhood education, peer interview, narrative research

10. Sjøen, M. M. (2021). From Global Competition to Intercultural Competence: What Teacher-Training Students with Cross-Cultural Teaching Experience Should be Learning. *Scandinavian Journal of Educational Research*, 67(1), 140–153. <https://doi.org/10.1080/00313831.2021.1990121>

**Abstract:** This study explores how cross-cultural practicums can facilitate intercultural learning in Norwegian teacher education. The qualitative research reported here studies teacher-training students carrying out a teaching practicum in

Tanzania. The findings indicate that there are several positive intercultural outcomes for these students. However, by analysing their narratives discursively, the study also finds that many students overestimate their progress towards intercultural competence. This is particularly the case when the students experience significant “cultural clashes”, which tend to result in them expressing stronger stereotypes about the cultural “other”. It is argued that this is due to how the students have received largely monocultural socialisation. Consequently, this study calls for greater scrutiny of the ideologies that underpin globalisation. Thus, in an attempt to shift the focus away from globalisation's drive towards cultural competition, this study argues for the need to infuse critical and comprehensive approaches to internationalisation into teacher education.

**Keywords:** Intercultural competence, internationalisation, teacher education, short-term student mobility, critical discourse analysis

11. Bergström, D., Norberg, C., & Nordlund, M. (2021). “The Text Comes First” – Principles Guiding EFL Materials Developers’ Vocabulary Content Decisions. *Scandinavian Journal of Educational Research*, 67(1), 154–168. <https://doi.org/10.1080/00313831.2021.1990122>

**Abstract:** One core aspect of learning a language is developing vocabulary, an endeavor that requires a structured and principled focus in the classroom. As the EFL textbook has a central position in the language learning classroom, it should have an important role to play in structuring vocabulary development. Yet, what guides decisions concerning the vocabulary content in textbooks has not been thoroughly studied. This paper presents an interview study with eight Swedish materials developers of frequently used EFL teaching materials aimed at school years 7–9. The results show that the materials developers focus primarily on providing engaging texts and base the vocabulary content on end users’ opinions and their own intuition. The study also indicates that word lists are construed as a tool primarily for reading comprehension rather than for vocabulary learning. The study concludes that vocabulary research findings appear to have a limited impact on decisions about vocabulary content.

**Keywords:** English as a foreign language, materials development, textbooks, vocabulary development, vocabulary instruction

12. Arneback, E., Bergh, A., & Tryggvason, Á. (2021). On Teachers’ Professionalism When Colleagues Express Racism – Challenges and Choices. *Scandinavian Journal of Educational Research*, 67(1), 169–180. <https://doi.org/10.1080/00313831.2021.1990123>

**Abstract:** The aim of this article is to shed light on teachers’ actions to counter racism expressed by their colleagues. Based on qualitative interviews with teachers in Swedish upper secondary schools, the article presents a narrative analysis of three teachers. The article highlights the complexity of what it means to be a colleague in anti-racist work and argues that this brings different risks and possibilities for White teachers and for teachers of colour. By relating the narratives to research on racism and teacher professionalism, the article contributes to a better understanding of the

prevalence and character of racism expressed by colleagues, and points at the need for further research.

**Keywords:** Teachers, professionalism, racism, anti-racism, colleagues, narrative

## TECHNOLOGY, PEDAGOGY AND EDUCATION

1. Rosenthal, E., Gillette, S. R. F., Nelson, A. E., Dennis, M. S., & DuPaul, G. J. (2023). Enhancing homebound instruction: current status and potential of telepresence technology. *Technology, Pedagogy and Education*, 32(2), 133–149. <https://doi.org/10.1080/1475939x.2022.2160373>

**Abstract:** When a student is homebound from school, they miss out on beneficial classroom experiences. One way to keep homebound students connected is through the use of telepresence technology. However, the existing literature has not been systematically reviewed to address important variables related to successful implementation. The authors conducted a systematic literature review on the use of telepresence technology for homebound K–12 students prior to the Covid-19 pandemic. Twelve articles published between 1990 and 2020 were included. Research on telepresence technology in the classroom is variable regarding outcomes studied and methodologies. Anecdotal data revealed that the use of telepresence technology increased homebound students’ academic, social engagement and comfort. Implications for practitioners include feasibility of implementation of telepresence technology for students unable to physically attend classes and guidance in team structure necessary to successfully utilise telepresence. Increased funding allocated to controlled research and necessary infrastructure is essential for successful school-based implementation of telepresence technology.

**Keywords:** Homebound instruction, telepresence technology, telepresence robots

2. Chye, S., Zhou, M., Koh, C., & Liu, W. C. (2023). The economics of learning: tradeoffs in student teachers’ use of multipurpose digital portfolios. *Technology, Pedagogy and Education*, 32(2), 151–169. <https://doi.org/10.1080/1475939x.2022.2156591>

**Abstract:** Digital portfolios have gained an increasing prominence in teacher education programmes around the world as a consequence of research which purports their multiple benefits to users and of their potential to represent beginning teachers’ practices. Despite the current popularity of digital portfolios, the nature of their use is still not well understood. This article explores how student teachers use digital portfolios in a teacher education programme in Singapore from an economics perspective. It posits that the adoption of an economic lens would shed new light on existing understandings and raise awareness of how and why student teachers use digital portfolios the ways they do. Reference to a range of economic concepts would help to better understand educational outcomes. The article considers the implications of the findings for informing how digital portfolios are implemented and raises issues for consideration in further implementation efforts and in future research.

**Keywords:** Digital portfolios, teacher education, scarcity, trade-offs

3. Miles, N., Hicks, K., Nelson, K., Cahill, M. A., Scott, C. J., & John, G. K. (2023). Finding flow: unpacking the capacity of in-lecture question activities to engage online students. *Technology, Pedagogy and Education*, 32(2), 171–190. <https://doi.org/10.1080/1475939x.2023.2167859>

**Abstract:** Maintaining student engagement in online and recorded lectures is a challenging aspect of higher education. In light of this, active learning through in-lecture question activities was investigated using a pre-teaching focus group ( $n = 12$ ) and student evaluations ( $n = 43$ ) after an in-class trial. Data analysis was underpinned by flow theory, which can explain student engagement and immersion with content and activities. The key findings included: (1) students' preference for familiar technology platforms; (2) students desired more engagement in their lectures both internally and online; and (3) in-lecture questions had to be matched with quality content to ensure the highest chance of flow and student engagement. Thematic analysis suggested engagement may have been related to key aspects of flow such as immediate feedback, and matching challenges to skill levels. Overall, learning designers and educational technologists should be used to ensure in-lecture question activity introductions work within current institutional platforms and pedagogies such as active learning.

**Keywords:** Mobile learning, lecture capture, andragogy, clickers, student response systems

4. Trevisan, O., & De Rossi, M. (2023). Preservice teachers' dispositions for technology integration: common profiles in different contexts across Europe. *Technology, Pedagogy and Education*, 32(2), 191–204. <https://doi.org/10.1080/1475939x.2023.2169338>

**Abstract:** Technology integration in education has a great potential for learning, provided it is based on solid teacher knowledge and pedagogical reasoning. Teacher Technological Pedagogical Content Knowledge (TPACK) is deeply connected with non-rational factors such as beliefs and attitudes – *dispositions* –, together informing behaviours for technology integration. This article reports on research into preservice teachers' TPACK and dispositions for technology integration when entering initial teacher education (ITE) courses that will likely impact their professionalisation. This is part of a wider multiple case study engaging 288 participants across three European ITE institutions. Participants' TPACK and dispositions were investigated through a questionnaire. Findings suggest four patterns of preservice teachers' dispositional configuration (disengaged, idealist, executive and self-sufficient) shared by the different contexts, albeit at different rates. Further research is ongoing to understand how ITE may engage the different profiles and which factors specifically may affect dispositional configurations in preservice teachers' education.

**Keywords:** TPACK, dispositions for technology integration, initial teacher education

5. Jimoyiannis, A., & Koukis, N. (2023). Exploring teachers' readiness and beliefs about emergency remote teaching in the midst of the COVID-19 pandemic. *Technology, Pedagogy and Education*, 32(2), 205–222. <https://doi.org/10.1080/1475939x.2022.2163421>

**Abstract:** This article reports on a study exploring Greek K–12 teachers' views and beliefs about emergency remote teaching. A survey was conducted just after schools reopened on May 2020 and 694 teachers participated. The findings indicated that the majority of the participants conceptualised the pandemic as a turning point with regards to the role of digital technologies in schools. Exploratory factor analysis

revealed four major factors that affected online instruction during the COVID-19 pandemic: a) teachers' abilities to design online learning activities; b) teachers' professional development needs; c) impact of the pandemic on education; and d) teachers' pedagogical conceptions of online learning. Qualitative data analysis revealed that teachers' pedagogical skills, in terms of organising effective online learning environments and implementing e-learning interventions in K–12 classrooms, were the key factors for successful online instruction during the pandemic and beyond.

**Keywords:** Emergency remote teaching, COVID-19 pandemic, online learning, teacher beliefs

6. Karlsson, G., & Nilsson, P. (2023). Capturing student teachers' TPACK by using T-CoRe and video-annotation as self-reflective tools for flexible learning in teacher education. *Technology, Pedagogy and Education*, 32(2), 223–237. <https://doi.org/10.1080/1475939x.2023.2170455>

**Abstract:** The aim was to investigate how a reflective tool, the T-CoRe, in combination with annotated self-recorded videos and reflective writing, could be used to capture student teachers' knowledge of digital technology use in their teaching. The authors used both a quantitative and a qualitative method to explore how 87 secondary science student teachers demonstrate their use of digital technologies in their teaching. The student teachers' video annotations, alongside a written reflection of critical incidents in their teaching, constituted data for the analysis. The analysis identified technology knowledge-dependent components in relation to the TPACK framework. The outcomes suggest that providing student teachers with a reflective tool such as the T-CoRe in combination with annotated self-recorded videos has the potential to make visible aspects of their TPACK. This research proposes a method for teacher education that works to improve the way that student teachers are prepared for using digital technology.

**Keywords:** T-CoRe, digital technologies, TPACK, self-reflection, teacher education

7. Hayak, M., & Avidov-Ungar, O. (2023). Knowledge and planning among teachers integrating digital game-based learning into elementary school classrooms. *Technology, Pedagogy and Education*, 32(2), 239–255. <https://doi.org/10.1080/1475939x.2023.2175719>

**Abstract:** The qualitative research employed semi-structured interviews with 28 elementary school teachers to examine the types of knowledge they use to integrate digital game-based learning (DGBL) into their classrooms and the nature of their integration planning. The findings revealed that teachers use four types of knowledge: game knowledge, game technological knowledge, game pedagogical knowledge and game technological pedagogical content knowledge. Five integration planning stages were identified, with stages A–C concerning the process of game selection and stages D–E concerning the integration of games in the classroom. Most teachers plan DGBL integration into their classrooms using a structured approach that follows each stage in order, whereas some teachers adopt a flexible planning pattern that omits or reorders some stages. The types of knowledge teachers use at each DGBL integration planning

stage were identified and will be relevant to teacher educators and to teachers seeking to better integrate DGBL into their practice.

**Keywords:** Digital game-based learning (DGBL), teachers' perceptions, types of teacher knowledge, planning patterns, technological pedagogical content knowledge (TPACK)

8. Nuttall, J., Rooney, T., Gunn, A. C., & White, E. J. (2023). The impact of digital documentation platforms on early childhood educators' work in Australia and New Zealand. *Technology, Pedagogy and Education*, 32(2), 257–273. <https://doi.org/10.1080/1475939x.2023.2177720>

**Abstract:** Thousands of early childhood education centres around the world use digital documentation platforms to report children's learning. Yet there is little research into how these platforms are changing work practices in early childhood education. This pilot study tested the usefulness of cultural-historical activity theory to analyse work shadowing observations and follow-up interviews with seven teachers across four centres in Australia and New Zealand. The use of Leontiev's 'hierarchy of activity' of operations, actions and motive objects was found to foreground two actions – *tagging* and *monitoring* – that connected basic technical operations with motives for the use of digital documentation platforms. The article reflects on the potential of this theory for future research in digital documentation in early childhood education, and suggests areas for further research, including the emergence of datafication in early childhood education as a new mode of governance of educators' work.

**Keywords:** Early childhood education, digital documentation, datafication, video-stimulated recall, hierarchy of activity

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