



Journal of the Learning Sciences

ISSN: (Print) (Online) Journal homepage: https://www.tandfonline.com/loi/hlns20

From the outgoing editors

Jan van Aalst & Susan A. Yoon

To cite this article: Jan van Aalst & Susan A. Yoon (2021) From the outgoing editors, Journal of the Learning Sciences, 30:1, 1-9, DOI: 10.1080/10508406.2021.1880158

To link to this article: https://doi.org/10.1080/10508406.2021.1880158

đ	1	0	
	П		
_	-	_	

Published online: 06 May 2021.



Submit your article to this journal 🕑





View related articles



View Crossmark data 🗹

EDITORIAL



Check for updates

From the outgoing editors

It has been an enormous honor and pleasure to lead the *Journal of the Learning Sciences (JLS)* in the last four years. We thank the International Society of the Learning Sciences for entrusting us with this role, and everyone who helped to deliver the four years of content. We published 75 articles (including introductions to and discussions of special issues). For that we read approximately 1050 manuscripts, and the associate editors oversaw 1100 reviews, involving 500 reviewers. We undertook several new initiatives to enhance the standing of the journal. In this brief note we review some of the changes and achievements of our term.

New initiatives

Best paper award

From volume 26 (2017) onward, we established an annual best paper award to recognize the high quality of *JLS* articles; we felt that after 25 volumes, the time for that had come. The process for selection is a rigorous one in which a short-list is collaboratively generated by the editorial team, and the winning paper is selected by an external panel of experienced and emerging learning scientists. During our term, the award has been given to the following articles: Chi et al. (2017), Allen and Eisenhart (2017), Barzilai and Chinn (2018), and Calabrese Barton and Tan (2019).

Social media outreach

To increase the journal's impact, we embarked on a multi-dimensional social media campaign. This includes announcements on Facebook and Twitter when an article is published, and invitations the authors to organize a webinar that we host when an issue is published. We also produced a video series on reviewing for *JLS* that we recommend to all new reviewers and especially new authors to find out how *JLS* reviewers think about this task. You can find out more about this series at www.isls.org. The webpage for *JLS* also holds archived videos from the webinars, news about *JLS*, and other resources. Please visit the website and consider using the resources in your graduate courses and advising.

2 🕢 VAN AALST AND YOON

Special issues as an annual feature

To accommodate emerging themes in the field, connecting to nearest-neighbor fields, and growth of the field, we negotiated a 25% increase in publishing capacity with our publisher Taylor & Francis from 2019 onward. One way we have used the additional space is by commissioning one special issue per volume following an open call. We have published one special issue, "Situating Data Science: Exploring How Relationships to Data Shape Learning" (Wilkerson & Polman, 2020), and the second is published in the present issue.

Reducing review time and time to acceptance

We worked to reduce the time a manuscript needs to make it through to publication. We implemented various strategies to shorten the time in review, which included: (a) introducing a maximum length of 15,000 words (very long articles are difficult to keep focused, take longer to review and revise, and can take longer to place in an issue); (b) reducing review time; (c) encouraging authors to return revisions more quickly; and (d) showing the article history with the published article. The introduction of special issues has also helped to reduce time to publication. Please see www.isls.org for current statistics on reviewing.

JLS and early career authors

JLS has long prided itself on mentoring new scholars, but the time to publication is a concern that new scholars have sometimes voiced. How did we do in the last 4 years with new scholars as JLS-published authors? The data shows that 18 articles have lead authors who earned their doctorates in 2013 or later (Allen & Eisenhart, 2017; Boelens et al., 2020; Greenberg et al., 2020; Harris et al., 2020; Headrick Taylor, 2017; Hecht & Crowley, 2020; Hennessy Elliott, 2020; Keifert & Stevens, 2019; Kupers et al., 2017; Levine, 2019; Lewis, 2017; Litman et al., 2017; Margulieux & Catrambone, 2019; Sommerhoff et al., 2018; Tärning et al., 2020; Vea, 2020; Walkoe & Luna, 2020). That is approximately a quarter of all articles published and includes one article winning the Best Paper Award. These early-career JLS authors are doing exceptional work according to their institutional webpages. We hope that a publication in JLS has been an advantage in beginning to build their career and we enthusiastically recommend that you become acquainted with these contributions, incorporate some of them in your learning sciences courses, and otherwise engage with them. We also highly recommend that doctoral students submit their research to JLS. Mentorship does help-not only via reviewer feedback but also before submission and in responding to requests for revision.

Emerging theme: JLS and politics, learning, and activism

The field is eager to attract research that connects to related fields and establishes emerging themes. During our term the biggest emerging theme among *JLS* articles was equity and social justice.

We find ourselves in politically turbulent times that we have not seen since the 1960s. Gaps between the rich and poor have increased dramatically, in the United States (Mahbubani, 2020) and other countries. There have been many protests about climate change, issues of race, and perceived threats to democracy. Hard-won victories for women's rights are under threat again in some states, which is counterposed by growing openness toward a fuller range of sexual orientation (LGBTQIA+; lesbian, gay, bisexual, transgender, queer, intersexual, asexual). Against this backdrop, a community of scholars has emerged in the learning sciences-already before our term-that felt there was an unmet need for more research on equity, racial and social justice, and political aspects of learning in JLS. Philip and Sengupta (2021) argue cogently that it would be a bold step forward for the field, similar to how the development of design research came about in the 1990s. We published 14 articles in this area-18% of all articles. A special issue on designing learning environments for equitable disciplinary identification guest edited by Philip Bell, Katie van Horne, and Britte Cheng (commissioned by previous editors Josh Radinsky and Iris Tabak) has 7. Besides the article by Allen and Eisenhart (2017) that is included in this special issue, the abovementioned list of articles with lead authors who are early career researchers has 3 (Headrick Taylor, 2017; Hennessy Elliott, 2020; Vea, 2020); and there are 4 other articles (Calabrese Barton & Tan, 2019; Philip et al., 2018; Slakmon & Schwarz, 2017; Walsh & Tsurusaki, 2018). This emerging literature is highly regarded in the field; it has received 2 of 4 Best Paper prizes awarded so far. And a second special issue, guest edited by Joe Curnow and Susan Jurow, appears in the present issue. We think momentum has begun to build but observe that, so far, the scholarship is almost entirely U.S.-based.

Expanding our methodological traditions

In one of the first articles published in *JLS*, Ann Brown discussed at length how she saw the *interplay* between laboratory-based and classroom-based research in her own research program. "As a personal research strategy, I find that switching back and forth from both types of research settings enriches my understanding of a phenomenon" (Brown, 1992, p. 152). After exploring the nature of the contributions to knowledge of researchers in both contexts, Brown wrote: "I regard neither aspect of the work as basic or applied. Theoretical advances can emerge from both the laboratory and classroom settings. They are just that, different settings whose features must be included in the description of the data they produce" (p. 154). With research that is neither "basic or applied" Brown was in Pasteur's third quadrant (for a recent discusion, see Klahr, 2019) and design research in its various forms has perhaps become the most prominent approach to research in the learning sciences, often using case study and ethnographic methodologies.

As editors, we were interested in a more diverse methodological landscape with interplay between different approaches. Experimental studies that go beyond reporting experimental effects to include analyses that elucidate how the effects are accomplished during the learning process are included among the methods that we see are important in the learning sciences. This would also include a series of experiments that are contextualized in relation to the overall design-oriented nature of the field and larger studies that investigate patterns and effects across multiple sites. Unfortunately, the rejection rate of these kinds of studies has historically been high in *JLS*. However, during our term there have been some successful examples and for the benefit of scholars new to *JLS* who are interested in such work we therefore highlight a few of them below.

Ottmar and Landy (2017) report a randomized experiment in which students in 2 in-situ algebra classes were randomly assigned within their classes to 2 conditions that varied the sequence of 2 types of lessons. In one condition they received dynamic perceptual support for algebraic operations using tablets, followed by an abstract and static lesson; in the other condition it was the other way around. Three separate hierarchical regression analyses study the effects of the lesson order on achievement. This study does not include qualitative data but has detailed narratives to describe the intervention and the lessons. Van de Pol et al. (2019) study the extent to which uptake of contingent support (scaffolding) from the teacher mediates learning during small-group work. They use multilevel logistical mediation analysis of all interactions from 35 lessons small groups to analyze the likelihood that students formulate correct answers during group work in social studies courses. The quantitative effects are then illustrated by qualitative excerpts of discourses in the small groups. And Kupers et al. (2017) followed 3 beginning string instrument students and their teachers for 18 months (28 video-recorded lessons per dyad), and studied how autonomy and scaffolding changed over time, within a complex-systems conceptualization of change. They used Monte-Carlo simulations to test whether the autonomy and scaffolding variables showed global change, followed by cluster analysis to identify types of student-teacher interactions with respect to autonomy and scaffolding and changes in them over time. The cluster analyses then identified the most characteristic patterns of interaction for each dyad for a qualitative analysis.

For further examples authors may consult the following studies: Chi et al. (2017), Chao et al. (2018), Chen et al. (2020), Clark et al. (2018), Easterday et al. (2017), Eberbach and Crowley (2017), Howe et al. (2019), Levine (2019), Litman et al. (2017), Rienties and Tempelaar (2018), Roberts and Lyons (2020), Santagata et al. (2018), Thadani et al. (2018), and Zhang et al. (2018).

Metrics, impact and social media

We would also like to highlight a few points about the journal metrics and impact, and the role social media can play. JLS has always had excellent journal metrics; the most recent Web of Science Journal Impact Factor (JIF) was 3.588 (rank 16/263 for Education and Education Research). Scopus (https://www. scopus.com/sources.uri) now provides several other journal metrics. The CiteScore is similar to the JIF but is based on citations from sources in the Scopus database, and based on citations published over 3 rather than 2 consecutive years. For 2019 it was 9.4 for JLS (rank 7th of 1254 sources in the category "education"). The SNIP (Source Normalized Impact per Paper) normalizes the number of citations to the total number of citations in the field, and thus controls for differences in citation patterns between fields that have different citation patterns. For JLS it was 3.709 (19th/1254). The SJR (SCImago Journal Rank) weighs an incoming citation by the SJR score of the source publication, so citations from prestigious journals contribute more. For 2019 the SJR for JLS was 2.569 (27th/1254). Finally, the acceptance rate also is a journal metric; for JLS it has been between 10% to 12% in the last few years. As there is substantial interest in journal metrics from authors, the publisher will soon begin reporting all of the metrics we have mentioned on its website, as well as the average time from submission to the first decision and to acceptance and average time from acceptance. We think that we leave the journal in very good shape for this level of accountability.

However, while journal metrics are important, from the perspective of authors whose work is published, *article metrics* also are important—for example, the number of views and citations, and the number of mentions in the media and social media. Getting an article published is just the first part of the process; its impact on the field is really "where the rubber hits the road." We think that authors have to play active roles in creating this impact after publication. Webinars can help to create attention, including the use of social media that is necessary to advertise them. *JLS* has been collaborating with authors to hold them but of course authors can also organize them independently. Equally important is that articles are *newsworthy*. At the publisher's suggestion we introduced structured abstracts with Background, Methods, Findings and Contribution elements. The Background is an opportunity to, among other things, connect the study

to what the field has been talking about—or should be. Contribution is an opportunity to highlight the newsworthiness, the significance, of the findings. The publisher provides article metrics with each article, and we encourage authors to use them to learn about the attention their article is getting.

Final words of farewell

We have been fortunate to have worked with an outstanding team of associate editors. They are on the front lines reading manuscripts, selecting appropriate reviewers, curating reviews, and writing decision letters. They are themselves top researchers in our field working as volunteers, shepherds, and caretakers of the high-quality research that *JLS* is known for. We are indebted to their service. We are also grateful to have worked with a dedicated editorial board as partners to the editorial team who review articles and advise us on emerging issues in the field.

We would like to mention a few specific people who have been instrumental in supporting the work of the journal during our term. Miyoung Park was our editorial assistant throughout our term and an essential member of the editorial team. She was joined by Jooeun Shim later on in 2020. Lillian Liu Kun was responsible for our social media outreach. We thank all of these assistants for their outstanding work and commitment to *JLS*. Finally, we would like to thank Christine Greenhow, Hugo Horta, and Bodong Chen who served on an advisory group in the first two years of our term to help us develop a social media plan.

We have very much enjoyed working as the co-editor's in chief and wish Susan Jurow and Jianwei Zhang a successful and rewarding term.

References

- Allen, C. D., & Eisenhart, M. (2017). Fighting for desired versions of a future self: How young women negotiated STEM-related identities in the discursive landscape of educational opportunity. *Journal of the Learning Sciences*, *26*(3), 407–436. https://doi.org/10.1080/10508406.2017.1294985
- Barzilai, S., & Chinn, C. A. (2018). On the goals of epistemic education: Promoting apt epistemic performance. *Journal of the Learning Sciences*, 27(3), 353–389. https://doi.org/10.1080/10508406.2017.1392968
- Boelens, R., De Wever, B., & McKenney, S. (2020). Conjecture mapping to support vocationally educated adult learners in open-ended tasks. *Journal of the Learning Sciences*, 29(3), 430–470. https://doi.org/10.1080/10508406.2020.1759605
- Brown, A. L. (1992). Design experiments: Theoretical and methodological challenges for creating complex interventions in classroom settings. *The Journal of the Learning Sciences*, 2(2), 141–178. https://doi.org/10.1207/s15327809jls0202_2

- Calabrese Barton, A., & Tan, E. (2019). Designing for rightful presence in STEM: The role of making present practices. *Journal of the Learning Sciences*, 28(4–5), 616–658. https://doi.org/10.1080/10508406.2019.1591411
- Chao, J., Feldon, D. F., & Cohoon, J. P. (2018). Dynamic mental model construction: A knowledge in pieces-based explanation for computing students' erratic performance on recursion. *Journal of the Learning Sciences*, 27(3), 431–473. https://doi. org/10.1080/10508406.2017.1392309
- Chen, G., Chan, C. K. K., Chan, K. K. H., Clarke, S. N., & Resnick, L. B. (2020). Efficacy of video-based teacher professional development for increasing classroom discourse and student learning. *Journal of the Learning Sciences*, *29*(4–5), 642–680. https://doi.org/10.1080/10508406.2020.1783269
- Chi, M. T. H., Kang, S., & Yaghmourian, D. L. (2017). Why students learn more from dialogue- than monologue-videos: Analyses of peer interactions. *Journal of the Learning Sciences*, 26(1), 10–50. https://doi.org/10.1080/10508406.2016. 1204546
- Clark, D. B., Tanner-Smith, E., Hostetler, A., Fradkin, A., & Polikov, V. (2018). Substantial integration of typical educational games into extended curricula. *Journal of the Learning Sciences*, 27(2), 265–318. https://doi.org/10.1080/ 10508406.2017.1333431
- Easterday, M. W., Aleven, V., Scheines, R., & Carver, S. M. (2017). Using tutors to improve educational games: A cognitive game for policy argument. *Journal of the Learning Sciences*, 26(2), 226–276. https://doi.org/10.1080/10508406.2016. 1269287
- Eberbach, C., & Crowley, K. (2017). From seeing to observing: How parents and children learn to see science in a botanical garden. *Journal of the Learning Sciences*, 26(4), 608–642. https://doi.org/10.1080/10508406.2017.1308867
- Greenberg, D., Calabrese Barton, A., Tan, E., & Archer, L. (2020). Redefining entrepreneurialism in the maker movement: A critical youth approach. *Journal* of the Learning Sciences, 29(4–5), 471–510. https://doi.org/10.1080/10508406. 2020.1749633
- Harris, E. M., Dixon, C. G. H., Bird, E. B., & Ballard, H. L. (2020). For science and self: Youth interactions with data in community and citizen science. *Journal of the Learning Sciences*, 29(2), 224–263. https://doi.org/10.1080/10508406.2019. 1693379
- Headrick Taylor, K. (2017). Learning along lines: Locative literacies for reading and writing the city. *Journal of the Learning Sciences*, 26(4), 533–574. https://doi.org/ 10.1080/10508406.2017.1307198
- Hecht, M., & Crowley, K. (2020). Unpacking the learning ecosystems framework: Lessons from the adaptive management of biological ecosystems. *Journal of the Learning Sciences*, 29(2), 264–284. https://doi.org/10.1080/10508406.2019. 1693381
- Hennessy Elliott, C. (2020). "Run it through me:" Positioning, power, and learning on a high school robotics team. *Journal of the Learning Sciences*, *29*(4–5), 598–641. https://doi.org/10.1080/10508406.2020.1770763
- Howe, C., Hennessy, S., Mercer, N., Vrikki, M., & Wheatley, L. (2019). Teacherstudent dialogue during classroom teaching: Does it really impact on student outcomes? *Journal of the Learning Sciences*, 28(4–5), 462–512. https://doi.org/10. 1080/10508406.2019.1573730

- Keifert, D., & Stevens, R. (2019). Inquiry as a members' phenomenon: Young children as competent inquirers [Article]. *Journal of the Learning Sciences*, 28(2), 240–278. https://doi.org/10.1080/10508406.2018.1528448
- Klahr, D. (2019). Learning sciences research and Pasteur's quadrant. Journal of the Learning Sciences, 28(2), 153–159. https://doi.org/10.1080/10508406.2019. 1570517
- Kupers, E., Van Dijk, M., & Van Geert, P. (2017). Changing patterns of scaffolding and autonomy during individual music lessons: A mixed methods approach. *Journal of the Learning Sciences*, 26(1), 131–166. https://doi.org/10.1080/ 10508406.2016.1259624
- Levine, S. (2019, January). Using everyday language to support students in constructing thematic Interpretations. *Journal of the Learning Sciences*, 28(1), 1–31. https:// doi.org/10.1080/10508406.2018.1485023
- Lewis, K. E. (2017). Designing a bridging discourse: Re-mediation of a mathematical learning disability. *Journal of the Learning Sciences*, *26*(2), 320–365. https://doi.org/10.1080/10508406.2016.1256810
- Litman, C., Marple, S., Greenleaf, C., Charney-Sirott, I., Bolz, M. J., Richardson, L. K., Hall, A. H., George, M., & Goldman, S. R. (2017). Text-based argumentation with multiple sources: A descriptive study of opportunity to learn in secondary English language arts, history, and science. *Journal of the Learning Sciences*, 26(1), 79–130. https://doi.org/10.1080/10508406.2016.1256809
- Mahbubani, K. (2020). Has China won? Public Affairs.
- Margulieux, L. E., & Catrambone, R. (2019). Finding the best types of guidance for constructing self-explanations of subgoals in programming. *Journal of the Learning Sciences*, 28(1), 108–151. https://doi.org/10.1080/10508406.2018. 1491852
- Ottmar, E., & Landy, D. (2017). Concreteness fading of algebraic instruction: Effects on learning. *Journal of the Learning Sciences*, *26*(1), 51–78. https://doi.org/10.1080/10508406.2016.1250212
- Philip, T., & Sengupta, P. (2021). Theories of learning as theories of society: A contrapuntal approach to expanding disciplinary authenticity in computing. *Journal of the Learning Sciences*, 30(2). https://doi.org/10.1080/10508406.2020. 1828089
- Philip, T. M., Gupta, A., Elby, A., & Turpen, C. (2018). Why ideology matters for learning: A case of ideological convergence in an engineering ethics classroom discussion on drone warfare. *Journal of the Learning Sciences*, 27(2), 183–223. https://doi.org/10.1080/10508406.2017.1381964
- Rienties, B., & Tempelaar, D. (2018). Turning groups inside out: A social network perspective. *Journal of the Learning Sciences*, 27(4), 550–579. https://doi.org/10. 1080/10508406.2017.1398652
- Roberts, J., & Lyons, L. (2020). Examining spontaneous perspective taking and fluid self-to-data relationships in informal open-ended data exploration. *Journal of the Learning Sciences*, 29(1), 32–56. https://doi.org/10.1080/10508406.2019. 1651317
- Santagata, R., Yeh, C., & Mercado, J. (2018). Preparing elementary school teachers to learn from teaching: A comparison of two approaches to mathematics methods instruction. *Journal of the Learning Sciences*, 27(3), 474–516. https://doi.org/10. 1080/10508406.2018.1441030
- Slakmon, B., & Schwarz, B. B. (2017). "Wherever you go, you will be a polis": Spatial practices and political education in computer-supported collaborative learning

discussions. Journal of the Learning Sciences, 26(2), 184-225. https://doi.org/10. 1080/10508406.2016.1253569

- Sommerhoff, D., Szameitat, A., Vogel, F., Chernikova, O., Loderer, K., & Fischer, F. (2018). What do we teach when we teach the learning sciences? A document analysis of 75 graduate programs. *Journal of the Learning Sciences*, *27*(2), 319–351. https://doi.org/10.1080/10508406.2018.1440353
- Tärning, B., Lee, Y. J., Andersson, R., Månsson, K., Gulz, A., & Haake, M. (2020). Assessing the black box of feedback neglect in a digital educational game for elementary school. *Journal of the Learning Sciences*, 29(4–5), 511–549. https://doi. org/10.1080/10508406.2020.1770092
- Thadani, V., Roth, K. J., Garnier, H. E., Seyarto, M. C., Thompson, J. L., & Froidevaux, N. M. (2018). What can a cognitive coding framework reveal about the effects of professional development on classroom teaching and learning? *Journal of the Learning Sciences*, 27(4), 517–549. https://doi.org/10.1080/10508406.2017.1396220
- Van de Pol, J., Mercer, N., & Volman, M. (2019). Scaffolding student understanding in small-group work: Students' uptake of teacher support in subsequent smallgroup interaction. *Journal of the Learning Sciences*, 28(2), 206–239. https://doi.org/ 10.1080/10508406.2018.1522258
- Vea, T. (2020). The learning of emotion in/as sociocultural practice: The case of animal rights activism. *Journal of the Learning Sciences*, 29(3), 311–346. https:// doi.org/10.1080/10508406.2020.1748036
- Walkoe, J. D. K., & Luna, M. J. (2020). What we are missing in studies of teacher learning: A call for microgenetic, interactional analyses to examine teacher learning processes. *Journal of the Learning Sciences*, 29(2), 285–307. https://doi.org/10. 1080/10508406.2019.1681998
- Walsh, E. M., & Tsurusaki, B. K. (2018). "Thank you for being Republican": Negotiating science and political identities in climate change learning. *Journal of the Learning Sciences*, 27(1), 8–48. https://doi.org/10.1080/10508406.2017.1362563
- Wilkerson, M. H., & Polman, J. L. (Guest Eds.). (2020). Situating data science: Exploring how relationships to data shape learning. Special issue. *Journal of the Learning Sciences*, 29(1), 1–10. https://doi.org/10.1080/10508406.2019.1705664
- Zhang, J., Tao, D., Chen, M.-H., Sun, Y., Judson, D., & Naqvi, S. (2018). Coorganizing the collective journey of inquiry with idea thread mapper. *Journal of the Learning Sciences*, 27(3), 390–430. https://doi.org/10.1080/10508406.2018. 1444992

Jan van Aalst ELAN, Faculty of Behavioural, Management and Social Sciences, University of Twente ⊠ j.c.w.vanaalst@utwente.nl

> Susan A. Yoon Graduate School of Education, University of Pennsylvania http://orcid.org/0000-0002-8715-0233