



Paper: “Alternative to the right-hand rule: Farah’s method”

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Peer review:

Reviewer 1: Fernando Espinoza
Hofstra University, USA

Reviewer 2: Blinded

ESJ Manuscript Evaluation Form 2025

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Reviewer Name: Fernando Espinoza Lopez	
University/Country: Hofstra University/USA	
Date Manuscript Received: 6/10/2025	Date Review Report Submitted: 6/16/2025
Manuscript Title: Alternative to the right-hand rule: Farah's method	
ESJ Manuscript Number: 19534	
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Evaluation Criteria:

Please give each evaluation item a numeric rating on a 5-point scale, along with a thorough explanation for each point rating.

<i>Questions</i>	<i>Rating Result</i> [Poor] 1-5 [Excellent]
1. The title is clear and it is adequate to the content of the article. <i>(Please insert your comments)</i>	4
2. The abstract presents objects, methods, and results. <i>Some parts lack substance, such as the References (too few); no tasks included to determine how the data were interpreted.</i>	3
3. There are a few grammatical errors and spelling mistakes in this article. <i>Well written for the most part; a couple of stylistic issues in a few paragraphs.</i>	4
4. The study methods are explained clearly. <i>There were no activities/tasks included.</i>	3
5. The results are clear and do not contain errors. <i>The data collected seem properly analyzed; Why are there two arrows over the B symbol?</i>	4

6. The conclusions or summary are accurate and supported by the content.	5
<i>(Please insert your comments)</i>	
7. The references are comprehensive and appropriate.	2
<i>Problematically short list of references; if the authors explored the literature sufficiently, then the shortness of the list included must be explained.</i>	

Overall Recommendation (mark an X with your recommendation) :

Accepted, no revision needed	
Accepted, minor revision needed	
Return for major revision and resubmission	
Reject	

Comments and Suggestions to the Author(s):

The limitations of the study are particularly noteworthy; I concur with the authors' observations about what is needed to properly pursue this line of investigation into a well-known area of students' difficulties.

Reviewer A:

Recommendation: Revisions Required

The TITLE is clear and it is adequate to the content of the article.

The title is clear and appropriate.

The ABSTRACT clearly presents objects, methods, and results.

The abstract presents objects, methods, and results.

Remark 1: A better explanation is needed on how a 3-dimensional coordinate system would make it easier to visualize than the right hand rule.

There are a few grammatical errors and spelling mistakes in this article.

Remark 2: Minor grammatical and punctuational issues. Needed to be checked again.

The study METHODS are explained clearly.

Terms and the examples can be explained more clearly.

Remark 3: In figures 8 and 9, the rotations are showed in clockwise or in counterclockwise, but not mentioned in which axis. More clear explanation of the figures is needed.

Remark 4: "By replacing hand gestures with Cartesian coordinate rotations, Farah's Method aims to enhance student understanding, particularly for those challenged by the RHR's three-dimensional visualization and hand- positioning requirements (Hegarty, 2014)." how showing in cartesian coordinate rotations provide a better understanding than 3D approach since xyz coordinate system as shown in the figures are also 3d. Thus author need to provide more detailed explanation on the methods.

Methodology (study on secondary school students) and analysis are clear.

The body of the paper is clear and does not contain errors.

A better explanation on the figures and the terms is needed.

Remark 4: A term dictionary would provide a better understanding for the readers. A definition for the terms and symbols such as $dl^{\vec{r}}$, \hat{r} , $B^{\vec{r}}$ and so on.

The CONCLUSION or summary is accurate and supported by the content.

Accurate and supported by the methodology.

The list of REFERENCES is comprehensive and appropriate.

Clear refferences.

Remark 6: Adding the link to the link text (text to display the website link) would make it easier to approach the website in the following:

3.Hegarty, M. (2014, April). Spatial Thinking in Undergraduate Science Education. An Interdisciplinary Journal Spatial Cognition & Computation, 14(2), 142-167.

<https://doi.org/https://doi.org/10.1080/13875868.2014.889696>

Please rate the TITLE of this paper.

[Poor] 1-5 [Excellent]

Please rate the ABSTRACT of this paper.

[Poor] 1-5 [Excellent]

4

Please rate the LANGUAGE of this paper.

[Poor] 1-5 [Excellent]

4

Please rate the METHODS of this paper.

[Poor] 1-5 [Excellent]

3

Please rate the BODY of this paper.

[Poor] 1-5 [Excellent]

3

Please rate the CONCLUSION of this paper.

[Poor] 1-5 [Excellent]

5

Please rate the REFERENCES of this paper.

[Poor] 1-5 [Excellent]

4

Overall Recommendation!!!

Accepted, minor revision needed

Comments and Suggestions to the Author(s):

Revisions are needed as noted in remarks 1-6.

Additional: A better explanation is necessary on the figures, examples and how the Farah's method approach would make understanding easier
