APTA Academy of Education
A Component of the American Physical Therapy Association

Grant Review Instructions

The APTA Academy of Education Research Committee reviews, scores and ranks research grant applications. Grants are awarded based on merit and scientific contributions to physical therapy education. For a definition of education research: https://www.aera.net/About-AERA/What-is-Education-Research.

Review Process[1]:

1. Each grant proposal will be reviewed by all members of the Academy Research Committee.
    a. Academy Research Committee members with a conflict of interest with a proposal or its investigators shall notify the Chair and recuse themselves from consideration of the proposal.
2. Two reviewers will be assigned to each proposal by the Chair of the Academy Research Committee.
3. The two assigned reviewers independently complete all elements of the proposal review form.
    a. Each criterion is scored using the 9-point scale (see Table 1).
    b. A *bulleted* critique (rather than narrative) of succinct and focused strengths and weaknesses must accompany each criterion score.
    c. Considering criterion strengths and weaknesses, a preliminary Overall Impact score is assigned to the proposal using the same 9-point scale (see Table 1 and Figure 1).
        i. The Overall Impact score does *not* have to be the arithmetic mean of the criterion scores.
    d. Reviewers will write a paragraph summarizing the factors that informed their Overall Impact score. See Overall Impact score description.
        i. The summary paragraphs written by the assigned reviewers will be available to the primary investigator upon completion of the full review process.
    e. Each reviewer will submit a copy of their completed proposal review form to the Academy office (academy@aptaeducation.org) with "Academy Research Committee Review" in the email subject line.
4. The Academy's office will create a spreadsheet that includes scores of the two reviewers for each proposal, including all criterion scores and preliminary Overall Impact scores, as well as the budget total.
5. The Academy Research Committee will meet virtually to discuss each proposal.
    a. A member of the Academy's staff will attend and act as recording secretary.
    b. A copy of the spreadsheet with all proposal scores will be visible to members during the Academy Research Committee meeting and discussion.
    c. Assigned reviewers will lead discussion of the proposal by the Academy Research Committee, focusing on major strengths and weaknesses of the proposal.
        i. Criterion scoring by the assigned reviewers will not be discussed by the Academy Research Committee members.
    d. Considerations in the proposal that may affect the Overall Impact score shall be raised by Academy Research Committee members. This may include overlap with

[1] Proposal format, review process and scoring for grants is adapted from NIH R03 guidelines and NIH guidelines for scoring research grants.

ongoing research elsewhere that might affect the impact or significance of the proposed study.

6. As a result of the discussion, the assigned reviewers for a proposal may request that the staff person modify criterion scores.
7. Each Academy Research Committee member (including the assigned reviewers) will verbally provide a final Overall Impact score for the proposal after discussion.
    a. The staff member will track all Academy Research Committee member Overall Impact scores into Version 2 of the displayed spreadsheet, with an automatic calculation of the average final Overall Impact score for each proposal.
    b. The spreadsheet (V2) will then be sorted by average Overall Impact score (lowest score to highest score).
8. The Academy Research Committee will determine the proposal to receive funding based on rank-order.
9. In instances where the Academy's grant budget for the year has a sufficient balance after the first grant is awarded to consider funding an additional grant:
    a. The second-ranked proposal shall be considered for acceptance. If that proposal has a larger budget than can be accommodated, the principle investigator (PI) should be given the option to determine if the project aims can be met with the balance of available funding.
    b. If the PI for the second-ranked proposal cannot meet the proposal aims with the available funding balance, the PI has the option to resubmit a modified proposal within 2 weeks of notification or to decline funding in the current cycle.
    c. If the second-ranked proposal declines funding, the process is repeated for the third-ranked proposal.
10. Assigned reviewers who changed their opinions based on the proposal discussion should submit a revised proposal review form with modifications of criterion scores, criterion critiques, Overall Impact score and/or summary paragraph (as needed) within 1 week of the Academy Research Committee meeting.

Research Grant Proposal Scoring

Table 1

Impact	Score (no decimals)	Descriptor	Additional Guidance on Strengths and Weaknesses
High	1	Exceptional	Exceptionally strong with essentially no weaknesses
	2	Outstanding	Extremely strong with negligible weaknesses
	3	Excellent	Very strong with only some minor weaknesses
Medium	4	Very Good	Strong but with numerous minor weaknesses
	5	Good	Strong but with at least one moderate weakness
	6	Satisfactory	Some strengths but also some moderate weaknesses
Low	7	Fair	Some strengths but with at least one major weakness
	8	Marginal	A few strengths and a few major weaknesses
	9	Poor	Very few strengths and numerous major weaknesses

Minor weakness = An easily addressable weakness that does not substantially lessen impact
Moderate weakness = A weakness that lessens impact
Major weakness = A weakness that severely limits impact

Review Criteria Descriptions

Table 2

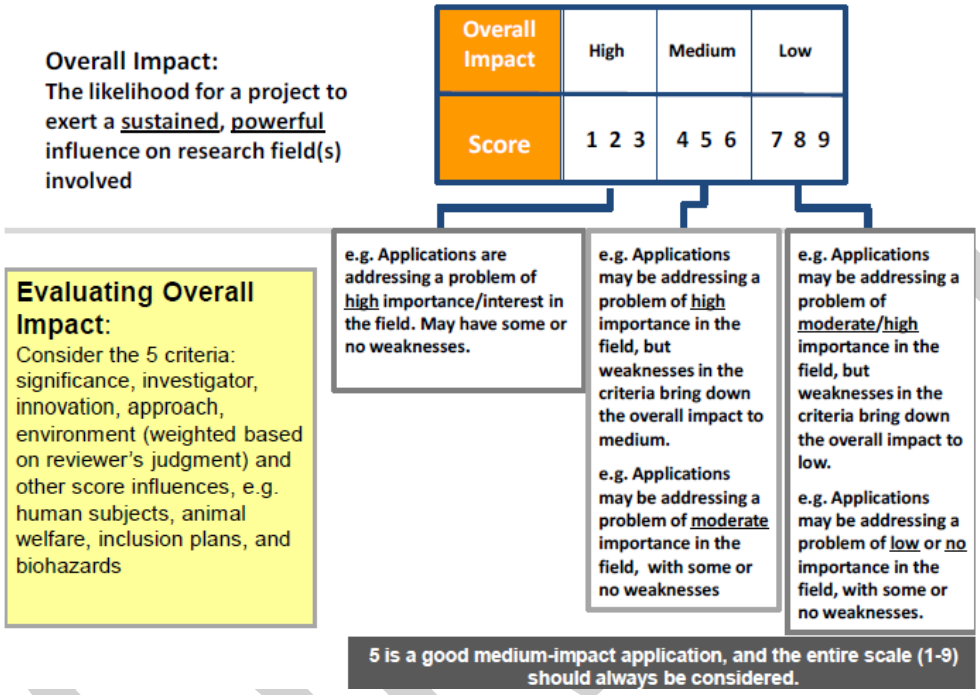
Criterion	Description
Significance	Does the project address an important problem or critical barrier to progress in the field? Is there a strong scientific or theoretical premise for the project? If the aims of the project are achieved, how will scientific knowledge, technical capability, or education/clinical practice be improved? How will successful completion of the aims change the concepts, methods, technologies, or services in physical therapy educational practices?
Investigator(s)	Are the PI(s), collaborators, and other researchers well suited to the project? If Early Stage Investigators or those in the early stages of independent careers, do they have appropriate experience and training? If established, have they demonstrated an ongoing record of accomplishments that have advanced their field(s)? If the project is collaborative or multi-PI, do the investigators have complementary and integrated expertise; are their leadership approach, governance and organizational structure appropriate for the project?
Innovation	Does the application challenge and seek to shift current research or educational practice paradigms by utilizing novel theoretical concepts, approaches or methodologies, instrumentation, or interventions? Are the concepts, approaches or methodologies, instrumentation, or interventions novel to one field of research or novel in a broad sense? Is a refinement, improvement, or new application of theoretical concepts, approaches or methodologies, instrumentation, or interventions proposed?
Approach	Are the overall strategy, methodology, and analyses well-reasoned and appropriate to accomplish the specific aims of the project? Have the investigators presented strategies to ensure a robust and unbiased approach, as appropriate for the work proposed? Are potential problems, alternative strategies, and benchmarks for success presented? If the project is in the early stages of development, will the strategy establish feasibility, and will particularly risky aspects be managed? Have the investigators presented adequate plans to address relevant biological variables, such as sex? Are there plans to address 1) the protection of human subjects from research risks, and 2) inclusion (or exclusion) of individuals on the basis of sex/gender, race, and ethnicity justified in terms of the scientific goals and research strategy proposed?
Environment	Will the scientific environment in which the work will be done contribute to the probability of success? Are the institutional support, equipment and other physical resources available to the investigators adequate for the project proposed? Will the project benefit from unique features of the scientific environment, subject populations, or collaborative arrangements?

Overall Impact Score

1. Overall Impact is not a sixth review criterion, but a synthesis of all the (scored and not scored) review criteria
2. In Overall Impact, reviewers should assess the *likelihood* for the project to exert a *sustained, powerful influence* on the research field(s) involved.
3. Reviewers will consider whether the budget and the requested period of support are fully justified and reasonable in relation to the proposed research.
4. The Overall Impact paragraph provides the reviewer with the opportunity of explaining how the Overall Impact score was derived (i.e., those factors that contributed to the score).

a. If a project has a strong/weak Overall Impact score, then the reviewer should highlight those scored criteria that contributed to the favorable/poor score. For example, if the potential significance of a study was so great as to overshadow a number of methodological weaknesses then this should be clearly stated.
b. Likewise, if the design of the study is so flawed as to negate any potential significance and/or innovation of the study then this should be clearly stated.
c. Importantly, the Overall Impact paragraph should provide a clear justification of those key factors that led to his/her Overall Impact score. It is not intended to simply summarize and/or restate the strengths and weaknesses detailed in the critique.

Figure 1



From: https://grants.nih.gov/grants/peer/guidelines_general/scoring_guidance_research.pdf (accessed 03/15/2020)

Research Grant Review Form

Investigators: XXXXXX

Proposal Title: _____

Reviewer's Name:_____ **Date: 7/14/2020**

Budget Total: $xxxxx

SCORING

Criterion	Description	Score (1-9)
Significance	Does the project address an important problem or critical barrier to progress in the field? Is there a strong scientific or theoretical premise for the project? If the aims of the project are achieved, how will scientific knowledge, technical capability, or education/clinical practice be improved? How will successful completion of the aims change the concepts, methods, technologies, or services in physical therapy educational practices? Comments: • *Add bulleted comments*	X
Investigator(s)	Are the PI(s), collaborators, and other researchers well suited to the project? If Early Stage Investigators or those in the early stages of independent careers, do they have appropriate experience and training? If established, have they demonstrated an ongoing record of accomplishments that have advanced their field(s)? If the project is collaborative or multi-PI, do the investigators have complementary and integrated expertise; are their leadership approach, governance and organizational structure appropriate for the project? Comments: • *Add bulleted comments*	X
Innovation	Does the application challenge and seek to shift current research or educational practice paradigms by utilizing novel theoretical concepts, approaches or methodologies, instrumentation, or interventions? Are the concepts, approaches or methodologies, instrumentation, or interventions novel to one field of research or novel in a broad sense? Is a refinement, improvement, or new application of theoretical concepts, approaches or methodologies, instrumentation, or interventions proposed? Comments: *Add bulleted comments*	X
Approach	Are the overall strategy, methodology, and analyses well-reasoned and appropriate to accomplish the specific aims of the project? Have the investigators presented strategies to ensure a robust and unbiased approach, as appropriate for the work proposed? Are potential problems, alternative strategies, and benchmarks for success presented? If the project is in the early stages of development, will the strategy establish feasibility and will particularly risky aspects be managed? Have the investigators presented adequate plans to address relevant biological variables, such as sex? Are there plans to address 1) the protection of human subjects from research risks, and 2) inclusion (or exclusion) of individuals on the basis of sex/gender, race, and ethnicity justified in terms of the scientific goals and research strategy proposed? Comments: *Add bulleted comments*	X
Environment	Will the scientific environment in which the work will be done contribute to the probability of success? Are the institutional support, equipment and other physical resources available to the investigators adequate for the project proposed? Will the project benefit from unique features of the scientific environment, subject populations, or collaborative arrangements?	X

	Comments: *Add bulleted comments*	