Best Practices for Writing CME Needs Assessments 2016

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Background

A needs assessment (NA) is essential during the planning of continuing medical education (CME) programs.[1] The NA describes gaps in knowledge, competence, and performance among health care professionals who care for patients with a specific disease and helps guide the development of instructional material aimed at closing these gaps. The NA is just one of many components of a full grant proposal used to request funding for development of an accredited CME program[2] (Table 1).

Table 1. Components of a CME Grant Proposal

Component	Function
Needs Assessment	Reveals gaps in clinical knowledge, competence, and performance among healthcare professionals (HCPs).
Learning Objective	Provides 2 to 3 non-overlapping, measurable objectives that address the identified gaps of the intended HCPs.
Desired Outcomes	Indicate the targeted HCPs and the effect of their expected newly acquired knowledge, competence, and performance for the targeted disease and the care of their patients.
National Quality Strategy (NQS)	Describes how the proposed CME program aligns with national goals for better quality, more affordable, and safer healthcare in patients and communities.
Program Agenda	Defines disease topics, number of case studies, allotted time, and format (eg. webinar, print monograph, live lecture) for faculty.
Outcomes Measurement Plan	Provides strategies that will assess retention of the material presented to HCPs, as well as any subsequent changes in behavior.
Budget & Schedule	Indicates the investment for generating the proposed CME program for the HCP audience and the expected time frame for delivery.
Credit Information	Shows the number and type of continuing education credits that will be provided to each participant who completes the program satisfactorily.
Value of CME provider(s)	Describes the experience and expertise of the CME provider(s) as related to the specific disease and proposed HCP audience.
Audience Generation Plan	Provides the mechanisms used to alert the HCPs interested in the targeted disease of the proposed CME program.

In 2011, two AMWA members performed a small pilot study and noticed much variation in NAs written for various private clients. According to quality improvement theorists, unwarranted variation in an internal process may be a sign of poor quality health-related services.[3] Subsequently, annual surveys have asked professional writers for their opinions on best practices for writing NAs with the research goal of identifying sources of variation and useful strategies to improve the quality of the internal process for NA generation. Here we present the results of the 2016 survey (third annual) and subsequent subgroup analyses.

Methods

The 2016 online survey contained 10 questions, opened on September 16, and closed October 8 (SurveyMonkey, San Mateo, CA). Eight questions produced quantitative data and two questions provided qualitative data. Participants were recruited via email and social media:

- Email to 20 AMWA local chapters and inclusion in most newsletters
- Email to 224 past respondents and people who requested to be notified
- LinkedIn groups: Alliance for Continuing Education in the Health Professions, AMWA, Continuing Medical Education, Mid-Atlantic Alliance for CME (MAACME)
- MAACME autumn 2016 newsletter
- Twitter (450 followers of @CME_Scout)

Data were analyzed using percentages and scoring rubrics set up by SurveyMonkey, means (average), medians (middle value), modes (most frequent response), and two-tailed T-Tests. Survey results were collected from 118 survey starts. Results from 10 survey starts were disqualified due to useless data. Ad-hoc subgroup analyses compared the results of more experienced writers (who had written 26 or more NAs) and less experienced writers (who had written 1 to 25 NAs) for many questions. Qualitative data on potential quality indicators provided by more experienced writers were refined by a focus group (n=6) by using the nominal group technique[4] at a dinner meeting in Philadelphia, PA on June 13, 2017.

Results

Employment Type

Most survey takers were staff employees (38%) or freelancers (44%), with a few writers working in both roles (7%) or not currently writing NAs (9%).

Experience Level of the Overall Survey Takers

Most survey takers (92%) had written at least 6 NAs in their career. Furthermore, 64% of survey takers had written at least 26 NAs and 46% had written more than 50 in their career. Most survey takers (62%) had read 6 or more NAs (besides their own) in 2015.

Thus, the vast majority of the survey takers were experienced medical writers of CME needs assessments.

Comparison of type of employment between more experienced writers (≥26 NAs, n=63) and less experienced writers (1-25 NAs, n=32)

Number of Writers

■ More Experienced Writers (≥26 NAs) ■ Less Experienced Writers (1—25 NAs)
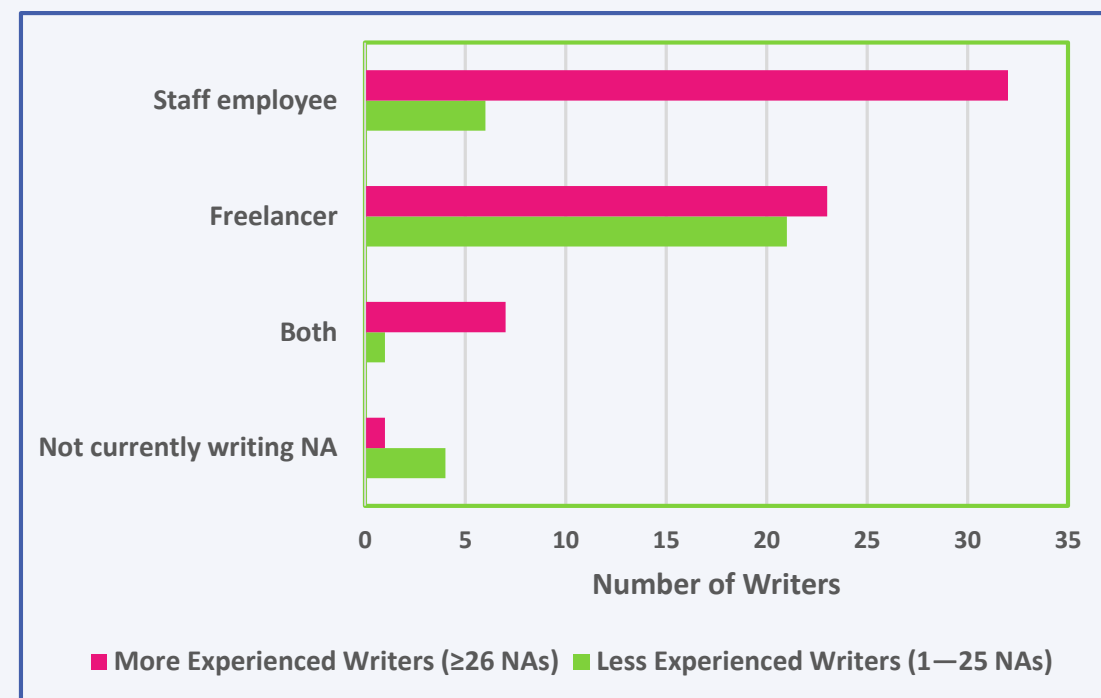
Types of Evidence

Question 3: Which elements would your clients or employer consider most essential for inclusion in a first-rate needs assessment? (Choose top 3.)

Percentage of Writers

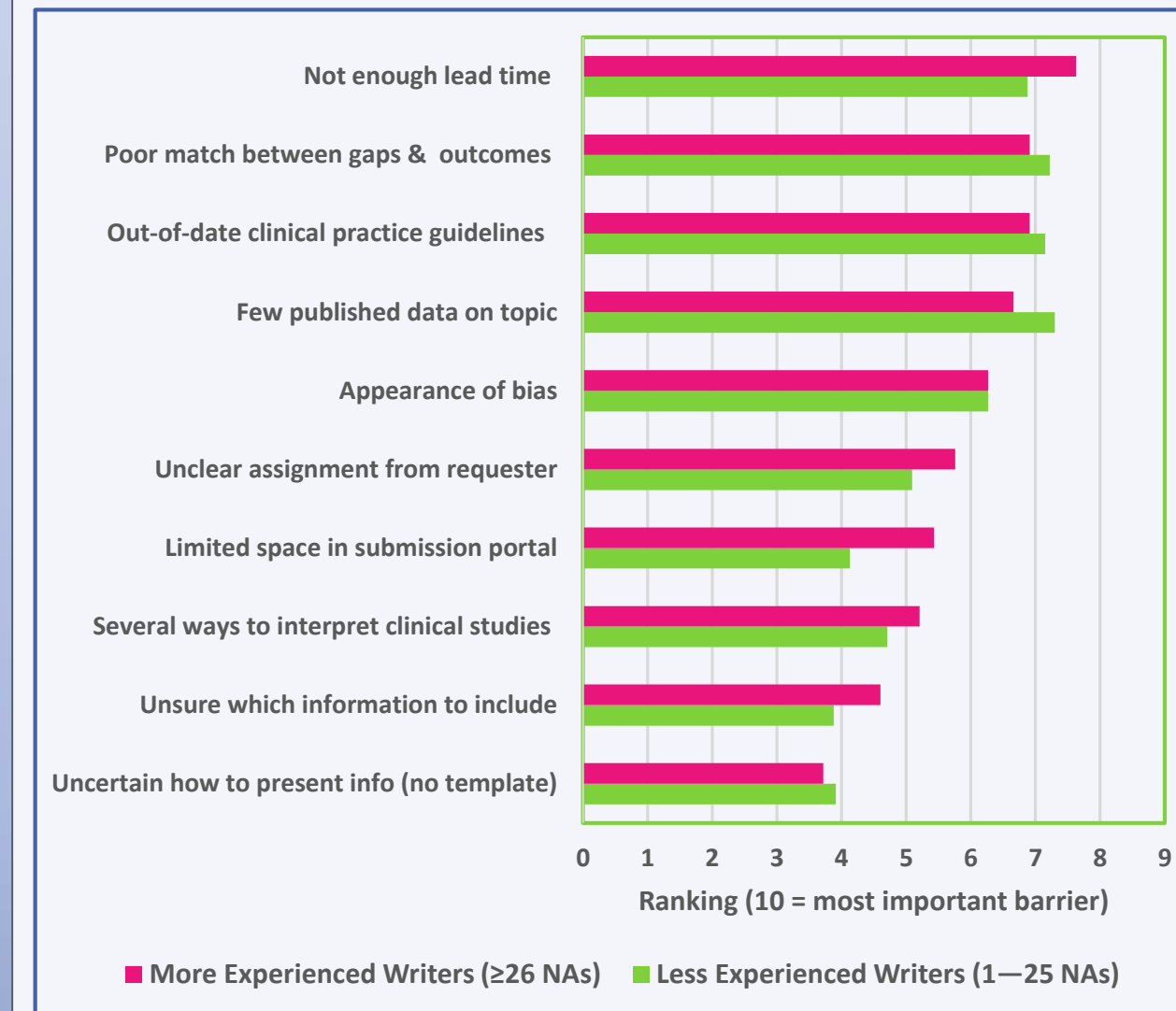■ More Experienced Writers (≥26 NAs) ■ Less Experienced Writers (1—25 NAs)
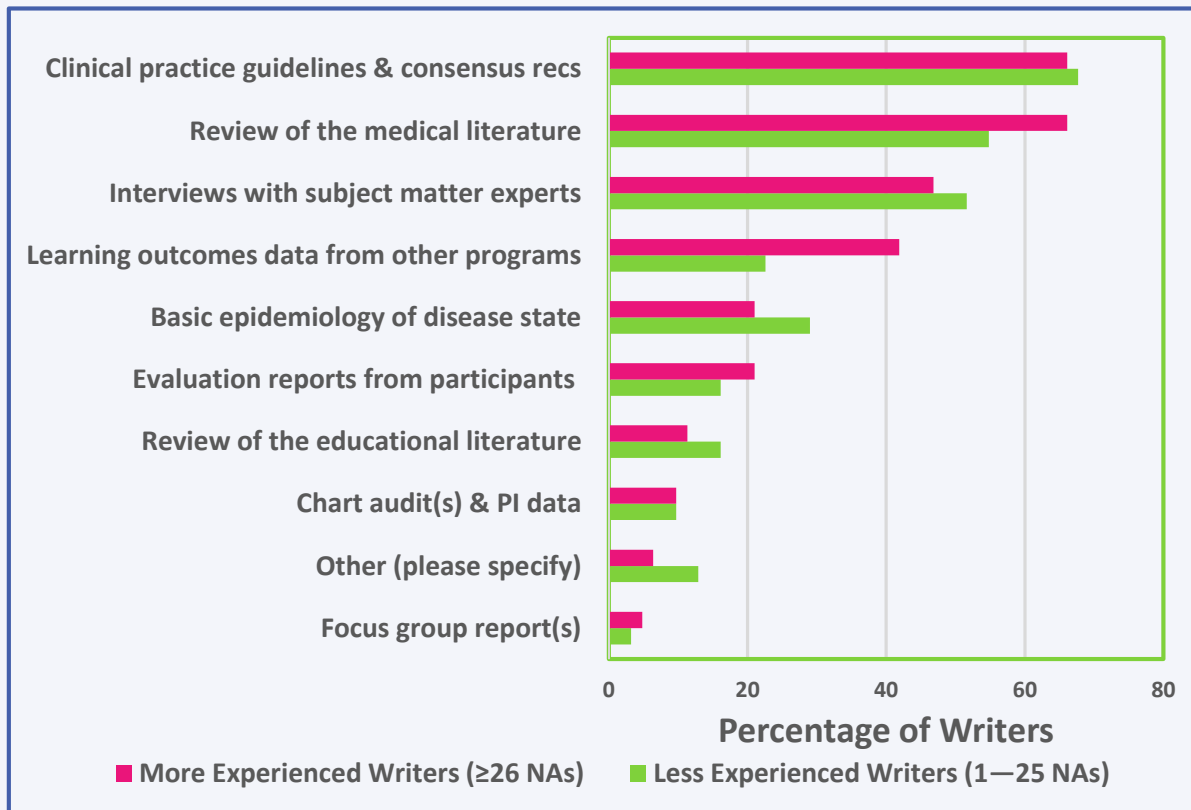
PI, performance improvement.

The more experienced writers of NAs (n = 62) considered learning outcomes data from other programs as more essential in a first-rate NA than less experienced writers of NAs (n = 31), but the differences were not significant (NS), p>0.05).
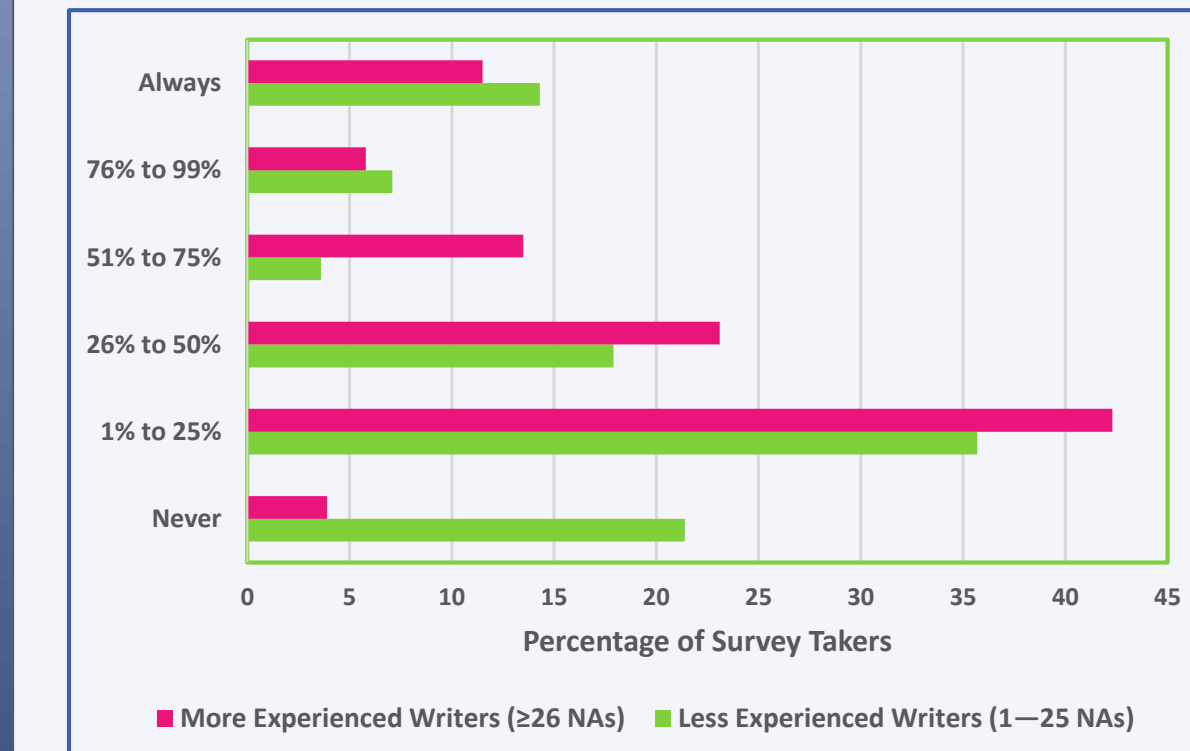
Results (cont.)

Barriers to Best Practice

Question 5: Please rank the following barriers in terms of their relative importance to your professional practice.

Ranking (10 = most important barrier)

■ More Experienced Writers (≥26 NAs) ■ Less Experienced Writers (1—25 NAs)

Both groups ranked most of the barriers in a similar manner. The more experienced writers (n=53) ranked "limited space in submission portal" as a modestly higher barrier than the less experienced writers (n = 28), but the difference was not significant.

Prevalence of Patient's or Care Partner's Perspectives

Question 6: Please estimate how frequently your NAs include the patient's or care partner's perspective.

Percentage of Survey Takers

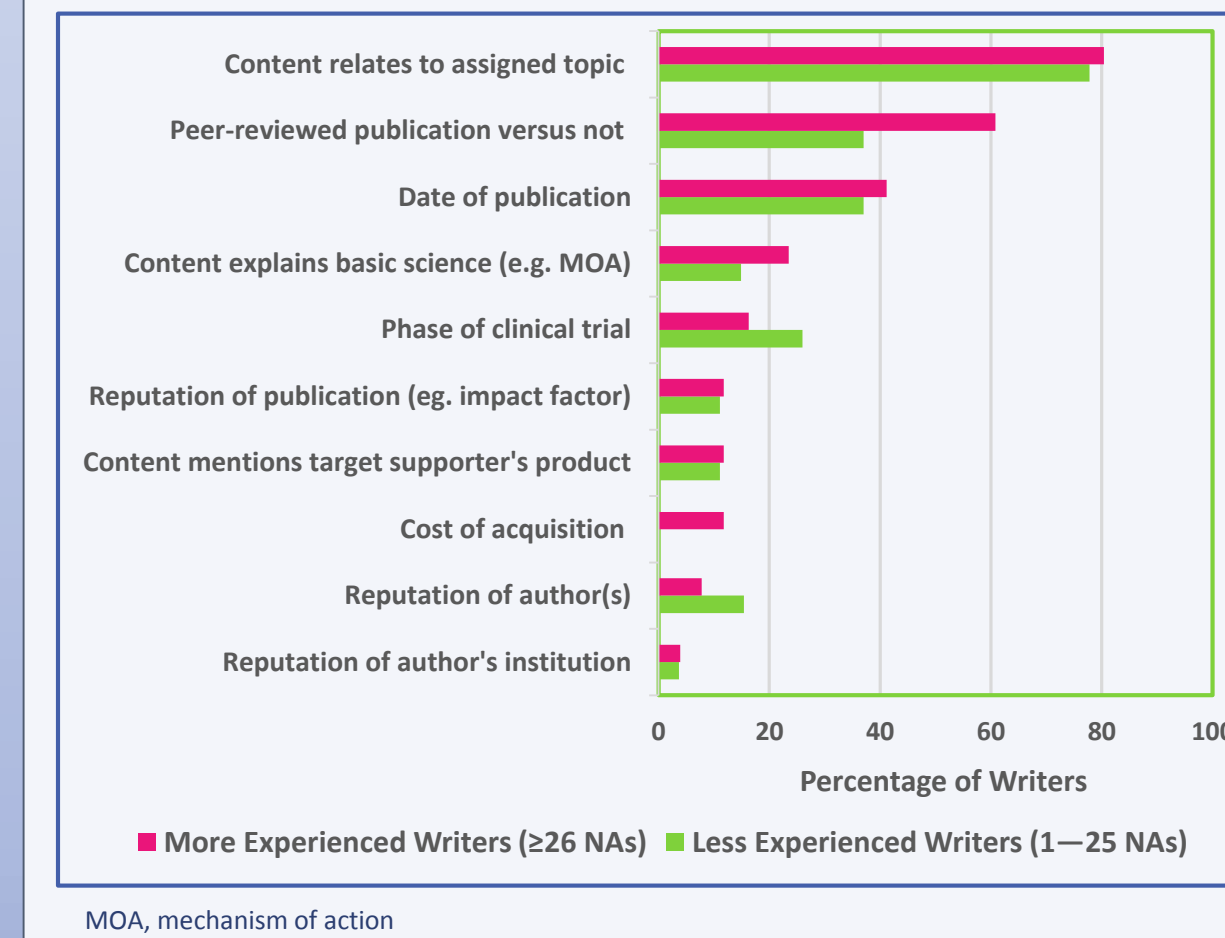■ More Experienced Writers (≥26 NAs) ■ Less Experienced Writers (1—25 NAs)

More experienced writers (n=52) appeared to include the patient's or care partner's perspective slightly more frequently than less experienced writers (n=28), but the difference was not significant.

Results (cont.)

Selecting Relevant References

Question 7: Please tell us a bit more about the way you choose references to cite. Indicate the relevancy of the following characteristics.

Percentage of Writers

■ More Experienced Writers (≥26 NAs) ■ Less Experienced Writers (1—25 NAs)

MOA, mechanism of action

The more experienced writers (n=51) viewed peer-review as a very relevant criterion for choosing a reference more frequently than less experienced writers (n=27), but the difference was not significantly different.

Characteristics of Recent Needs Assessments (n=78)

Number of References

The number of references ranged from 3 to 145. The median number of references was 30 (interquartile range (IQR), 15, 41). The most frequently reported number of references was 25 (10.3%), 35 (7.7%), 14 (6.4%,), and 12 (5.1%).

Lead Time

Median length of lead time of the 56 new NAs was 14 days with a range from 1 day to 90 days: (IQR, 7, 21 days). The most common number of days provided was 14 days (20.3%), 30 days (13.9%) and 7 days (8.9%).

Document Length (n=74)

The median document length was 2500 words (IQR, 1500, 4000 words). The length of the CME NAs ranged from 78 to 7850 words. The most frequently reported document length was 1500 words (8.1%), 3500 (6.8%), and 2500 (5.4%). Document lengths of 2000, 3000, and 4000 words were tied at 4.1%.

Naming a Preliminary Set of Quality Indicators for NAs

Question 4 invited each survey taker to suggest up to 3 quality indicators. The initial step to build consensus involved compiling 156 suggestions from the more experienced writers of needs assessments (≥26). Our next step was to analyze these suggestions in a systematic manner. For this purpose, we chose the nominal group technique[4] (NGT). This formal brainstorming strategy is often used by MD and PhD specialists to develop diagnostic and classification criteria and treatment guidelines[5] and to identify barriers to practice,[6] especially for teams of healthcare specialists. The technique encourages contributions from all participants, obtains a diverse set of ideas, and helps build consensus.

Results (cont.)

Naming a Preliminary Set of Quality Indicators for NAs (cont.)

Our focus group of 6 experienced writers used the NGT to identify a preliminary set of quality indicators for writing needs assessments. After 6 rounds of NGT, the focus group ranked the following 10 of 24 preliminary quality indicators to be the most essential and measurable. The list below shows these indicators in descending order, with square brackets indicating that similar qualities were condensed into a single line and voted on as a single quality indicator in the 6th round of NGT:

- Accuracy
- [Currency / timeliness / freshness / age of evidence]
- Readability
- [Clear statement / clarity]
- Data source
- Persuasiveness
- Alignment
- Story; validity; conciseness (3-way tie)

Discussion

The responses of the most experienced writers and the least experienced writers of needs assessments were not significantly different for the survey questions. Clinical practice guidelines and a medical literature review were considered the 2 most essential types of evidence for a NA. The 3 most relevant characteristics for citing a reference were 1) alignment of content with assigned topic, 2) peer-review, and 3) recent publication date. The median lead time given to writers was 14 days, which many writers perceive as not sufficient to perform adequate research and write a NA. The initial preliminary set of quality indicators for NAs is thought-provoking.

Study Limitations

The sample of writers was not random. Survey responses may be biased by the professional practices of the organizations that helped announce the survey (AMWA, MAACME) and the members of the investigators' networks. Most writers in the less experienced group had written 6 to 25 NAs (27/32; 84%).

Future Research

The fourth annual survey (Sept. 18 to Oct. 6, 2017) has been completed, and the raw results will be sent to all respondents (N=107). Identification of quality indicators and development of standards for writing CME needs assessments will continue to be pursued. Comparison of essential elements of NAs from the readers' and writers' perspectives is also a major research interest.

References

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