

## **Analysis of the Complete Workflow of Reader Training: A Case Study of a Training Session at the Qingdao Institute of Bioenergy and Bioprocess Technology, Chinese Academy of Sciences**

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### **Abstract**

Reader training in literature and information capabilities constitutes one of the key priorities for libraries and serves as a crucial instrument for libraries to fully realize their supportive functions. This article presents a comprehensive process narrative of a reader training event organized by the library of the Qingdao Institute of Bioenergy and Bioprocess Technology, Chinese Academy of Sciences, with particular emphasis on the detailed operational procedures across all stages before and after the training. The significant contributions of literature and information specialists and self-service training platforms to the training initiative are highlighted, thereby offering a reference framework for libraries undertaking reader training programs.

### **Full Text**

## **Whole-Process Analysis of Reader Training: A Case Study from the Qingdao Institute of Bioenergy and Bioprocess Technology, Chinese Academy of Sciences**

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### **Abstract**

Reader training in literature and information competency constitutes a core library function and a critical means for libraries to fulfill their supporting role. This article provides a comprehensive narrative of a reader training event organized by the library of the Qingdao Institute of Bioenergy and Bioprocess

Technology, Chinese Academy of Sciences, with particular emphasis on the detailed workflow before and after the training session. The study demonstrates that literature intelligence specialists and self-service training platforms play vital roles in the training process, offering valuable reference points for other libraries conducting reader training programs.

**Keywords:** Library; Reader training; Literature intelligence specialist; Self-service training

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On the morning of October 16, 2014, the library of the Qingdao Institute of Bioenergy and Bioprocess Technology, Chinese Academy of Sciences (hereinafter referred to as “our library” ) conducted three skills training sessions covering EndNote, Thomson Data Analyzer (TDA), and paper citation retrieval, with over 240 participants in total. While this attendance figure is not particularly high—our previous record for a single training session exceeded 200 participants—the entire operational process of this event offers valuable lessons and serves as a useful reference case for similar initiatives.

### 1.1 Training Topics

All three training sessions fell within our library’s annual training plan. Each year, our library conducts a comprehensive survey of literature and information competency training needs across the institute to establish the foundational training plan for that year. An EndNote training session had already been held in April of that year, attracting over 150 participants. However, with new graduate students joining in August and numerous new research staff arriving in recent months—some of whom had never used EndNote before, coupled with the release of new features in EndNote X7—our library anticipated substantial additional demand. The timing was opportune as Researcher Li Ling and Dr. Wang Yang, subject librarians from the National Science Library, Chinese Academy of Sciences, were visiting our institute, and both were highly experienced in conducting EndNote and TDA training. The citation retrieval training was delivered by our library staff (who hold certification from the National Science Library for citation retrieval), making it feasible to complete all three sessions within a single morning. This arrangement allowed participants to concentrate their time and energy for an intensive learning experience while enabling our library to minimize expenses (the large conference room rental cost 1,000 RMB for a half-day, regardless of duration).

### 1.2 Participant Registration

Our library created a registration form detailing each training topic, its objectives, and main content, which was distributed to the literature intelligence specialists in each research team. These specialists were responsible for publicizing the training to all team members (including students), compiling registration

lists, and submitting them to the library for aggregation. Notably, our library has established a team of literature intelligence specialists: each research team designates one staff member to coordinate literature and information work with the library. Much of the communication between our library and readers flows through this team, which plays a crucial role in our literature and information resource development and service delivery. We quickly received registration feedback from all specialists: 46 people registered for EndNote training, 32 for TDA, and 21 for citation retrieval, with less than half signing up for all three sessions. Based solely on these numbers, a small conference room accommodating 50 people would have sufficed, costing only 400 RMB. However, drawing on past experience, we anticipated that actual attendance would exceed 50 participants per session due to last-minute interest, necessitating the use of the large conference room.

## 2.1 Publicity and Promotion

The first step involved reserving the large conference room, as the training date could only be confirmed after securing the venue. Next, we determined the start time, sequence of sessions, and duration for each training (including breaks and Q&A periods). Publicity was then launched through three channels: library website announcements, mass email to readers, and poster displays. To conserve funds, we designed and printed the posters in-house, using a single A3 sheet that consolidated all essential training information in color. For maximum visual impact, we carefully considered font sizes, styles, and colors to ensure concise yet effective communication. The poster was organized as follows: title, training time and location, training topics with their objectives and schedules, trainer profiles, and motivational messaging. We emphasized the poster title “Three Information Competency Training Sessions: TDA, EndNote, etc.” and the tagline “Sharpening Your Tools Won’t Delay Your Work” to ensure visibility from a distance. From a closer range, readers could see the three training topics with their specific objectives and time slots. The EndNote X7 training aimed to help researchers efficiently manage literature and facilitate scientific writing; the TDA training sought to enable researchers to understand known competitors, identify potential rivals, and predict technological development trends through technical methods, providing crucial references for individual and team research decisions; the citation retrieval training focused on helping researchers quickly learn to accurately verify SCI, EI, and other database indexing and citations while generating standardized reports. After finalizing the poster design, we adapted its content for the library website announcement and the email notification to readers. All three promotional channels were activated simultaneously one day before the training. It is worth noting that the official training notification was sent via mass email to ensure everyone knew the schedule, location, topics, and objectives, thereby stimulating latent demand among some readers. Posters were displayed only on bulletin boards and high-traffic areas, using minimal double-sided adhesive for non-bulletin board placements to facilitate future removal. On the morning of the training, we sent reminder emails to all

literature intelligence specialists, requesting that they alert their colleagues and students.

## 2.2 Training Implementation

Trainers arrived early to ventilate the room and test the projector, network, and other equipment. At the start of each session, we distributed printed materials on literature and information services provided by the National Science Library, as well as small gifts such as glasses cloths printed with promotional messages like “Resources to the Institute, Services to Individuals, Integration into Frontline, Embedding into Process.” Since participants typically avoid the front rows, training staff encouraged them to sit forward using assurances about “clear visibility” and emphasizing that “this is not a leadership meeting.” The promotional efforts proved effective: the first session attracted over 80 attendees, nearly double the highest pre-registration number. Had we opted for the smaller 50-person conference room to save money, we would have faced the common problem of overcrowded training venues forcing some participants to stand outside or leave prematurely.

By selecting training topics familiar to our readers and incorporating live demonstrations, trainers successfully enhanced participant interest and engagement. Throughout all three sessions, attendees remained focused and attentive. The Q&A segments were particularly active, with participants eagerly asking questions and creating a strong learning atmosphere, especially during the EndNote X7 session, where some attendees came with specific problems to solve. Since both EndNote and TDA training had been previously conducted with complete video recordings, and citation retrieval methods were relatively straightforward, we did not record these sessions. However, training organizers took photographs from multiple angles at the start of each session for archival and promotional purposes.

## 2.3 Post-Training Follow-Up

Immediately after the training, our library uploaded all three presentation files to the “Reader Literature and Information Competency Training” section of our institutional repository under their respective topics. We then created a download notification titled “EndNote, TDA, and Other Training Materials Available for Download” with direct links, enabling one-click access. Through website announcements and mass email, we notified all potential users about the availability of these materials and how to access previous training videos. The response was significant: EndNote materials were downloaded 164 times, TDA materials 69 times, and citation retrieval materials 40 times—all substantially exceeding initial registration numbers.

To further support participants, we had pre-downloaded EndNote and TDA software installers and uploaded them to the institutional repository alongside the training materials, saving bandwidth for users. To better popularize TDA for

subject intelligence analysis, we coordinated with the Resource Development Department of the National Science Library to arrange a one-month institute-wide trial of the TDA software from the vendor (our library's public computers have one permanent license). To ensure more accurate TDA analysis, we included important reminders in our notification: (1) patent data analysis methods and procedures are identical to paper data analysis (the current training focused on bibliometric analysis, while previous sessions covered patent analysis); (2) data retrieval quality is the prerequisite for analysis quality, requiring careful attention to recall and precision rates, with scientifically formulated search strategies. We also provided contact information for follow-up questions about all three training sessions. Finally, we promptly published a training news article on our institute's website with direct download links to facilitate access for interested visitors.

Our library has consistently emphasized self-service training, which we define as a model where the library collects or creates targeted training materials using appropriate methods and delivers them to readers through convenient channels (primarily online) for self-directed learning. We have established a self-service training platform through our institutional repository, systematically collecting recent training materials by topic and proactively gathering relevant resources from online sources. The platform includes themed collections such as "End-Note Software and Usage Methods," "TDA Intelligence Analysis Tool Skills Training Series," "SciFinder Database Usage Competency Materials," "Research Output Competency Training Materials," "Patent Literature Retrieval Training Courseware," and "General Scientific Information Retrieval Knowledge Base." Our library website also features an "Information Literacy Training" section with hyperlinks directing readers to platforms such as the "National Science Library Information Literacy Education Platform" and our "Institute Training Materials Platform," enabling convenient access to relevant resources based on individual needs. All publicly available training materials on the platform have been approved by copyright holders regarding publication timing, scope, and usage conditions. When independently collecting training materials, we pay special attention to usage permissions from content creators to ensure compliance with distribution requirements. The vast majority of courseware is openly accessible to the public to promote knowledge sharing.

### 3. Identified Shortcomings

During the training, insufficient time was allocated for EndNote Q&A. Despite extending the session by over 20 minutes, many participants still had questions, forcing organizers to defer additional inquiries to future individual consultations with trainers. This experience demonstrates that when combining multiple training sessions, we must anticipate audience interaction levels and schedule the session likely to generate the most questions last to avoid disrupting subsequent sessions. Additionally, the categorization of training topics on our institutional repository and library website requires further systematization and scientific or-

ganization. We should classify materials according to functional types, such as “Literature Acquisition Competency,” “Intelligence Analysis Competency,” “Research Tool Usage Competency,” “Academic Writing Competency,” “Project Application and Management Competency,” “Intellectual Property Protection Competency,” and “Computer Operation Competency,” enabling readers to locate relevant materials more efficiently for self-directed learning.

Although reader training may appear to be a minor undertaking, it involves numerous personnel, logistical elements, and resources, making it a systematic project that warrants careful study. Despite certain deficiencies in our recent training, we believe our experience offers valuable insights for peer libraries. We hope that library professionals will jointly explore scientific and rational training models and methods to solidly advance reader literature and information competency training and fully realize the supporting role of libraries.

### References

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