

The Prevalence of Performance Improvement as a Central Topic in the Professional Literature

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Like our knowledge of the world, the field of performance improvement continues to evolve. The performance improvement field has evolved from the experience, research, reflection, and conceptualization of professionals seeking to improve human performance in the workplace and beyond. It has emerged from the fields of behavioral and cognitive psychology, systems theory, communication and information theory, instructional technology, training design, organizational development, ergonomics, and human resource management (Rosenberg, Coscarelli, & Hutchinson, 1999; Stolovitch & Keeps, 2006). Of these, many believe that its major influences have been instructional systems design and programmed instruction (Sanders & Ruggles, 2000), which themselves evolved from the fields of communication, management science, and behavioral sciences (Morgan, 1978).

Each time it has evolved, it has done so by consistently expanding its scope and incorporating a bigger part of the performance context. This evolution has even led professionals to consider the societal environment, which influences our practices and clients and which we ourselves influence through the value we add, do not add, or subtract (Kaufman, 2006, 2011). The evolution has also brought us to consider the expansion of the traditional *ADDIE* (Analysis, Design, Development, Implementation, and Evaluation) to *AADDIE* (Assessment, Analysis, Design, Development, Implementaton, and Evaluation), clearly distinguishing assessment of gaps in performance results before analysis (Guerra, 2003). While some performance improvement professionals might argue that this distinction is superfluous, others might point out that the importance of starting any performance improvement effort at the right place (i.e., evidence-based gaps in results) cannot be overstated.

Yet Stolovitch and Keeps (2006) state that while performance improvement evolved dramatically through the various editions of the

The performance improvement field has evolved from the work of professionals seeking to improve performance in the workplace. Each time the field has evolved, it has done so by consistently expanding its scope and incorporating a broader performance context in line with its systems-theory roots. But just how much has performance improvement evolved into a central topic across other fields? A high-level overview of the use of performance-related terms in myriad professional journals across a wide range of fields will be presented here.

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human performance technology (HPT) handbook, it will “continue to stand the test of time” (p. xv). The authors credit the sustainability of HPT in part to performance measurement. Likewise, other key figures in the performance improvement

field have reminded us that performance engineers carefully measure and manage key performance variables (Brethower, 2009; Rummier, 2004). Measurement is at the core of needs assessment, causal analysis, evaluation and monitoring, management, and research, to name just a few performance improvement processes. Performance measurement in the context of needs assessment allows us to determine the gaps between current and desired performance goals. In the context of summative evaluation it enables us to determine whether we have reduced or eliminated these gaps through the performance solutions that were implemented (Guerra-Lopez & Leigh, 2009), and through formative evaluation (or monitoring) we can measurably track progress toward desired results.

But just how much has performance improvement evolved and expanded beyond itself? That is, who else is talking about performance and performance improvement, perhaps not as a field by itself, but as an important element in other fields? Do they also talk about improving results? Do they attribute the same importance to performance measurement, specifically needs assessment and evaluation? There are certainly many routes to exploring the answers to these questions, but as a starting point to this discussion, a high-level overview of performance improvement and other related terms in myriad professional journals will be presented here.

Methodology

Four comprehensive databases (SAGE Journals Online; ScienceDirect; PsychInfo; and Business Source Complete) containing a mix of business and non-business journals, both peer-reviewed and non-peer-reviewed, were used to obtain frequency counts for the use of the terms *performance*, *performance improvement*, and *improving results*. These terms were selected because they represent the core of what this field is about. The search was conducted for abstracts over the past decade, year by year from 2000 to 2010. Each term was searched separately in both the peer-reviewed journals and all journals (if the databases had these distinctions; not all did). Here is an overview of each of the databases used:

SAGE Subject Collections: These are discipline-specific packages of the most popular peer-reviewed journals in communication and media studies, criminology, education, management and organization studies, materials science and engineering, nursing and public health, political science, psychology, sociology, and urban studies and planning published by Sage and participating societies. The total number of journals is 541.

ScienceDirect: This is a web database for scientific research that contains abstracts and the full text of more than 1,000 Elsevier Science journals in the life, physical, medical, technical, and social sciences. Overall, it includes 30,338 sources.

PsychInfo: This contains citations and summaries of journal articles, book chapters, books, and technical reports in the field of psychology and psychological aspects of related disciplines, including medicine, psychiatry, nursing, sociology, education, pharmacology, physiology, linguistics, anthropology, business, and law. PsychInfo includes a total of 2,497 sources.

Business Source Complete: This is the database for full-text journals in all disciplines of business, including marketing, management, MIS, POM, accounting, finance, and economics. Additional full-text content includes financial data, books, monographs, major reference works, book digests, conference proceedings, case studies, investment research reports, industry reports, market research reports, country reports, company profiles, SWOT analyses, and more. The total number of sources is 4,860.

The data were then analyzed by adding total frequencies per year, as well as estimating the overall average number of citations for the decade for each term searched. The frequencies were then charted for a visual representation of the usage trend for these terms over the past decade.

Findings

SAGE frequencies revealed that usage of the terms *performance*, *performance improvement*, and *evaluation* in abstracts increased steadily every year over the past decade. The terms that did not increase steadily were *improving results* and *needs assessment*. Also, the term *performance* was used considerably more than any other term, followed by *evaluation*; the other three terms were used noticeably less often in the following order: *performance improvement*, *needs assessment*, and *improving results*. Table 1 illustrates the frequencies for each of the terms across all years, while Figure 1 illustrates the trend.

TABLE 1 SAGE FREQUENCIES

TERMS	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Performance	905	913	919	1,029	1,179	1,218	1,328	1,445	1,540	1,680	1,921
Performance improvement	84	92	90	108	112	139	170	139	154	175	188
Improving results	3	4	4	3	3	5	6	4	7	4	9
Needs assessment	17	14	13	9	21	13	17	9	22	21	20
Evaluation	638	673	736	773	812	852	906	915	973	1,000	1,120

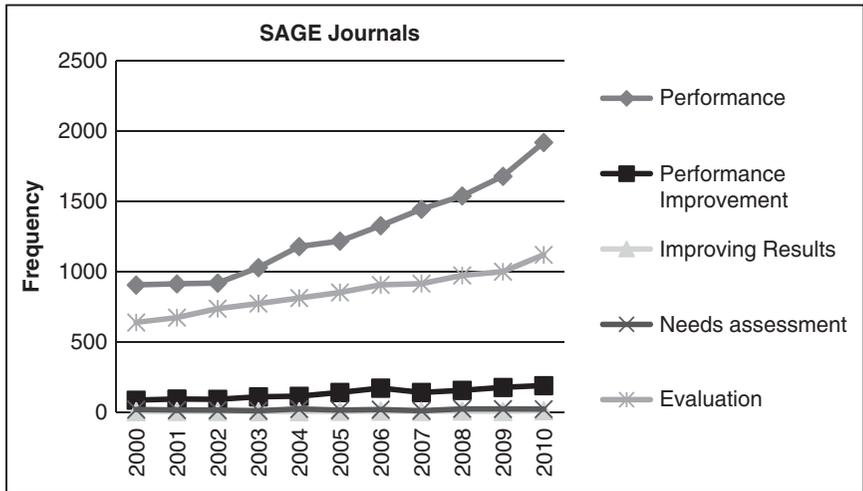


FIGURE 1. USAGE TREND FOR SAGE PUBLICATIONS

TABLE 2 SCIEDIRECT FREQUENCIES											
TERMS	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Performance	9,735	10,445	10,845	11,865	13,731	14,876	17,615	19,696	21,117	23,339	24,800
Performance improvement	631	683	717	757	924	987	1,212	1,350	1,486	1,570	1,739
Improving results	595	654	709	840	933	1,049	1,317	1,461	1,636	1,767	2,057
Needs assessment	506	516	540	591	655	740	810	902	964	1,059	1,221
Evaluation	5,895	6,205	6,392	7,047	8,510	8,800	9,469	10,631	11,165	12,322	12,615

ScienceDirect frequencies revealed that the usage of all terms searched increased steadily over the past decade, with *performance* growing at a more accelerated pace, followed by *evaluation*. Here, too, the term *performance* was used considerably more often than any other term, followed by *evaluation*. As with SAGE, use of the term *needs assessment* in abstracts was found the least number of times. Table 2 illustrates the frequencies for each of the terms across all years, while Figure 2 illustrates the trend.

Both SAGE and ScienceDirect databases include only peer-reviewed articles; therefore, for comparison purposes, the PsychInfo and the Business Source Complete data were divided into peer-reviewed only, and all sources. Peer-reviewed frequencies here revealed substantially higher usage of the terms *performance* and *evaluation*, approximately 100 times more often than the least used term: *needs assessment*. All terms except for *needs assessment* appeared to be used more frequently each year through the decade, with *performance* and *evaluation* growing at a smaller rate over the past two years. Frequencies for each year can be found in Table 3,

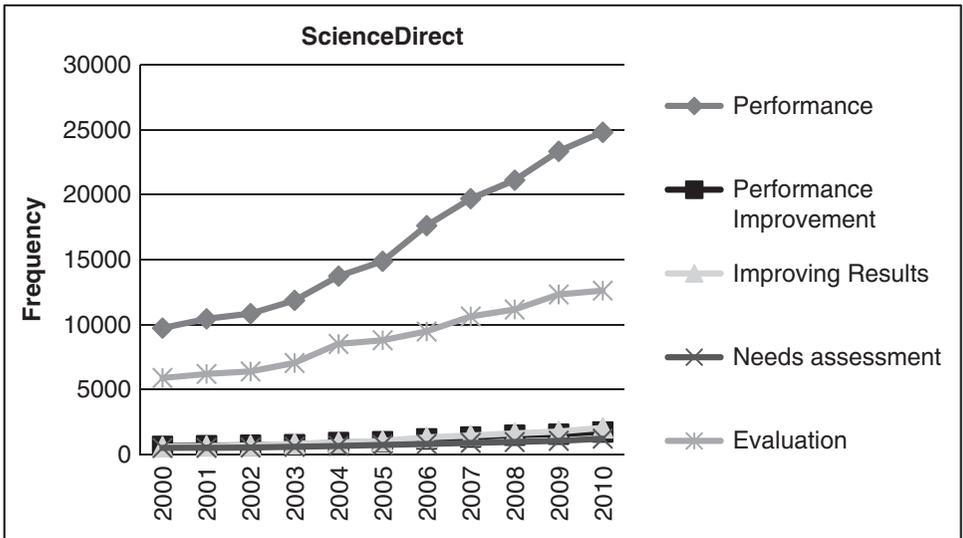


FIGURE 2. USAGE TREND FOR SCIENCEDIRECT

TABLE 3 PSYCHINFO FREQUENCIES FOR PEER-REVIEWED JOURNALS ONLY

COLUMN 1	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Performance	4,460	4,556	5,044	5,463	6,367	6,945	7,825	8,491	9,020	9,983	10,116
Performance improvement	213	239	253	302	392	451	536	596	611	726	715
Improving results	190	222	236	263	425	616	736	781	967	1,049	1,120
Needs assessment	44	39	56	57	63	76	75	70	87	76	68
Evaluation	4,016	4,384	4,799	5,579	6,121	7,115	7,649	8,017	8,889	9,001	8,880

and a visual representation of the trend in Figure 3. When frequencies are estimated for the entire database (both peer-reviewed and non-peer-reviewed materials), the trends appear about the same, with *evaluation* actually decreasing over the past two years. Table 4 displays the frequencies for the entire database, while Figure 4 illustrates the trend.

Business Source Complete frequencies for peer-reviewed journals revealed that the term *performance* was used more often than any other term, followed by *evaluation*, by approximately half the usage. *Performance improvement* followed with a noticeably smaller frequency, followed by *improving results*, and once again, *needs assessment*. Overall, the use of all terms, except for *needs assessment*, grew consistently over time. Refer to Table 5 for specific frequencies, and Figure 5 for a visual representation of the decade's trend.

When we take a look at the entire Business Source Complete database, the frequencies are much higher—in the case of *performance* it quadruples—but trends remain the same. Table 6 illustrates the frequencies for the entire database, and Figure 6 shows the trend.

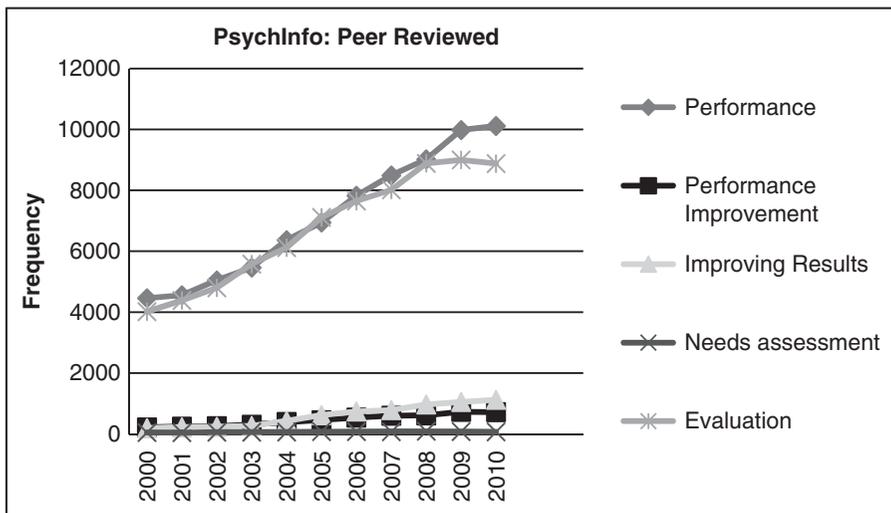


FIGURE 3. USAGE TREND FOR PSYCHINFO PEER-REVIEWED JOURNALS

TABLE 4 PSYCHINFO FREQUENCIES FOR ALL SOURCES IN DATABASE

ENTIRE DATABASE	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Performance	6,619	6,676	7,158	7,488	8,535	9,247	10,277	11,658	13,155	13,945	14,002
Performance improvement	324	342	372	404	516	593	688	862	986	1,080	1,061
Improving results	317	374	374	414	585	816	1,035	1,139	1,432	1,602	1,607
Needs assessment	61	58	72	71	83	92	96	93	113	111	109
Evaluation	5,240	5,573	5,895	6,683	7,362	8,507	9,168	9,672	11,308	10,919	10,795

Discussion

While it is important to note that *performance* may be defined somewhat differently across disciplines, the data across all databases consistently tell us that the topic of performance is continuously growing in popularity across many different fields. It is quite possible that the term *performance* was used in drastically greater numbers across all databases because it is a less specific term than *improving results* or *needs assessment*. The term *performance* can be used in just about any field with its own specific meaning and purpose. For example, how the “performing arts” talk about performance may be very different from the way it is

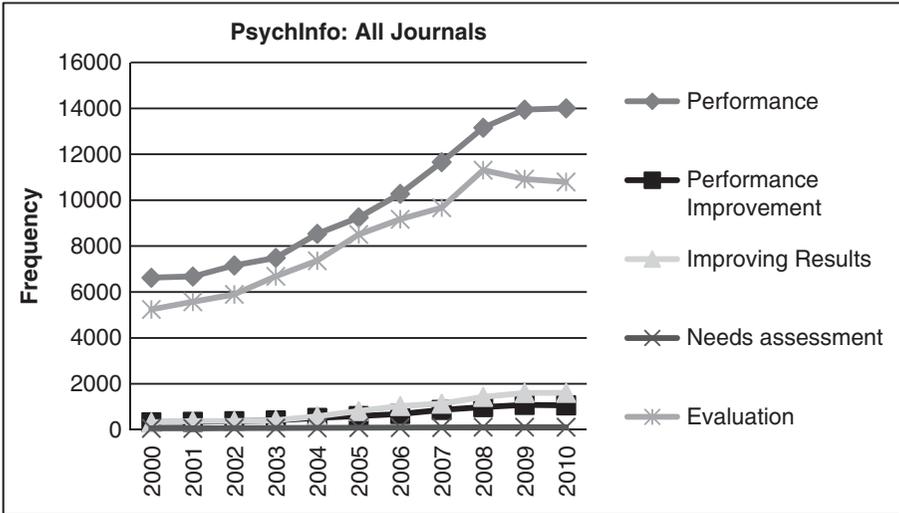


FIGURE 4. USAGE TREND FOR THE ENTIRE PSYCHINFO DATABASE

TABLE 5 BUSINESS SOURCE COMPLETE DATABASE FOR PEER-REVIEWED JOURNALS ONLY

PEER REVIEWED	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Performance	5,304	5,365	6,242	8,609	10,161	10,999	11,267	12,412	13,038	13,829	13,341
Performance improvement	303	299	377	618	792	871	876	992	994	1,005	1,011
Improving results	130	140	138	277	346	426	460	528	568	591	625
Needs assessment	3	14	20	13	16	15	14	16	19	16	20
Evaluation	2,469	2,742	2,962	3,312	3,861	4,093	5,000	5,709	6,176	5,968	6,504

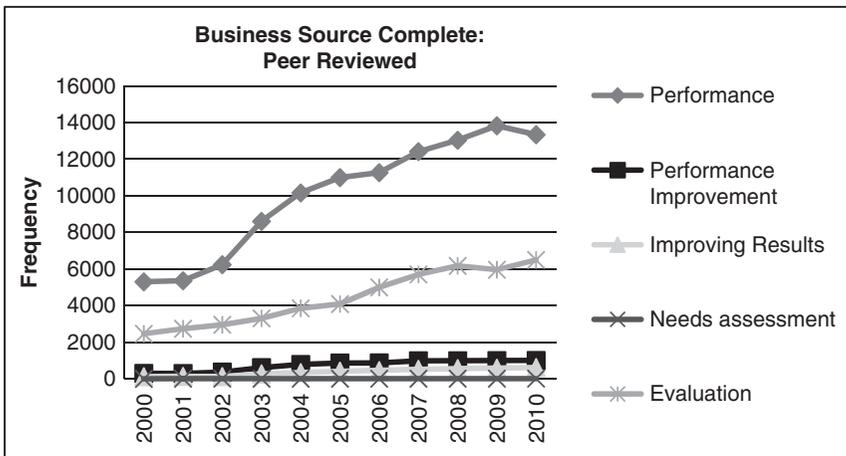
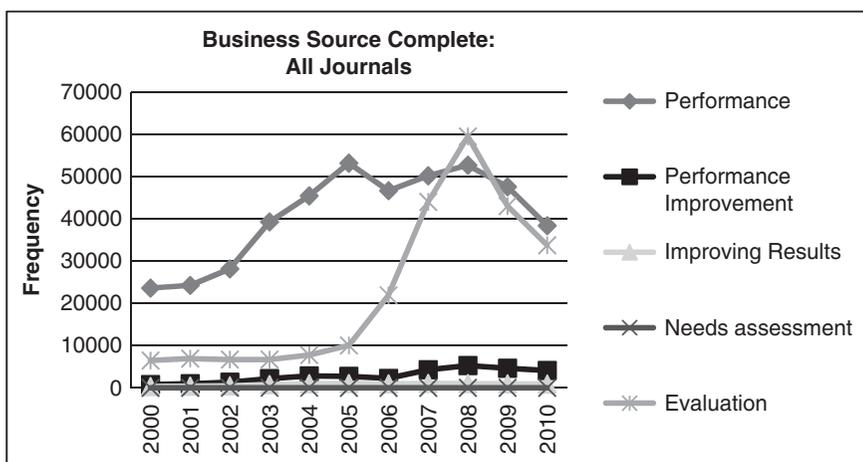


FIGURE 5. USAGE TREND FOR BUSINESS SOURCE COMPLETE PEER-REVIEWED JOURNALS

TABLE 6 BUSINESS SOURCE COMPLETE DATABASE FOR ALL SOURCES IN DATABASE

ENTIRE DATABASE	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Performance	23,595	24,224	28,139	39,222	45,389	53,112	46,608	50,133	52,634	47,524	38,334
Performance improvement	805	995	1,355	2,191	2,848	2,743	2,259	4,311	5,295	4,658	4,125
Improving results	329	424	501	803	1,012	1,054	978	1,075	1,034	974	914
Needs assessment	14	26	42	38	39	33	33	29	29	26	36
Evaluation	6,486	6,937	6,713	6,718	7,773	10,039	21,894	43,969	59,431	42,964	33,714

**FIGURE 6.** USAGE TREND FOR BUSINESS SOURCE COMPLETE FOR ENTIRE DATABASE

perceived in “accounting,” yet they may consider it equally important. In fact, if you look in just about any dictionary, you will find the term defined mostly in the context of the performing arts.

Yet, the fact that everyone is interested in performance represents a huge opportunity for performance improvement professionals. It would seem logical that if there is so much interest in performance, surely there is just as much interest in making it better, and who else could be more qualified than performance improvement experts? Rummler (2004) argued that the basic anatomy of performance is pretty much the same across organizations, and probably across fields as well. That is why performance improvement professionals are able to work across a variety of organizations and sectors.

Performance improvement professionals are in a position to help the field grow further and achieve sustainability, provided they work in a way that enhances their credibility rather than tarnishes it. Needs assessment and evaluation are central to that credibility. Needs assessment helps us identify or confirm that our efforts will be well directed and will indeed add value rather than subtract from it (Kaufman, 2006, 2011) while evaluation helps us gather the evidence that legitimately justifies our efforts and measurably demonstrates we have added value (Guerra-López, 2008). Interestingly, the data demonstrated a noticeably large gap between these two terms. Across all searches in all databases, *needs assessment* came up the fewest number of times. This might suggest either that needs assessments are not being conducted very often, or, in the best-case scenario, that they are being conducted but they are not a popular topic to publish, or they are just called something else. The first option is supported by a previous study, where Guerra-López and Blake (2011) found that the majority of leaders in their study took an idea-imposition approach rather than a discovery approach. A discovery approach allows one to learn about possibilities by gathering intelligence, specifying desired results, uncovering ideas, evaluating options, and implementing the most beneficial option. In an idea-imposition approach, which stresses pragmatics and making sense, decision makers limit their intelligence-gathering activities and focus resources to promote their initial idea. Moreover, these limited intelligence-gathering activities could potentially focus on gathering data that support their initial ideas (Nutt, 2008).

Professionals in our field may not always do better, either. Guerra (2003) found that while performance improvement professionals agreed that needs assessments should be the basis for what they do and how they do it, they did not conduct them as much as they know they should. With several well-known and respected front-end models in the performance improvement field (e.g., Gilbert, 1996; Harless, 1970; Kaufman, 2006; Mager & Pipe, 1984; Rummler, 2004), it would seem that performance improvement professionals can offer valuable expertise (research and practice) to other fields and sectors and make a significant impact.

The fact that the data support that evaluation is another popular topic, and trending to be even more popular, and may be a benefit to performance improvement. It would appear that there is either an understanding that evaluation is important, or at the very least, that it is becoming more ingrained in our culture, though perhaps ill-perceived, misapplied, or misguided. Nonetheless, awareness and accountability for resources consumed provide a great incentive for evaluation, and the same argument could be made for needs assessment, before the fact—that is, creating accountability before solutions are selected, not just afterward. After all, the data also revealed that there was an interest in *performance improvement*.

Conclusion

Admittedly, what we find in publications may not represent the complete picture of what goes on in practice, yet the trends presented here are still an indication of what topics appear to be important. The fact that performance seems universally important across fields and disciplines suggests that there is a great opportunity for the growth and sustainability of performance improvement as a field and as a discipline. It would behoove practitioners to explore opportunities beyond their familiar boundaries and challenge themselves to solve important problems across all sectors of society. Likewise, it is important for researchers to explore cross-disciplinary research where performance improvement methodologies can be applied, tested, improved, and showcased.

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