

Article

Workplace Leadership Development Practices: An Environmental Scan

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Abstract: Effective workplace leadership development programs are considered critical to organizational adaptive capacity and sustainability. The purpose of this exploratory study is to conduct an environmental scan of contemporary practices and approaches to leadership and management development programs in Australian workplaces. An online survey was distributed to a sample of Australian human resource professionals given the field's strong practitioner orientation. The survey sample includes members of the Australian Human Resources Institute (AHRI), the professional body for human resource professionals and practitioners in Australia. The findings indicate a substantial majority of the current practice is not informed by evidence-based theory or practice. The most commonly used model is 70:20:10, which lacks a coherent evidence base and has been widely criticized for that reason. The findings point to the frequent application of bespoke leadership frameworks and significant theory–practice gaps. While organizations cite “ensuring delivery of business results”, as the main driver for instigating leadership development programs, with support from top management being crucial to the effectiveness and success of leadership development programs/interventions, evaluation and measurement of impact and return on investment remains problematic. Based on these insights, we present a future research agenda for monitoring and evaluating leadership development programs that will build a stronger theoretical foundation to inform evidence-based practice.



Citation: Cameron, R.; Edwards, C.; Harper, G. Workplace Leadership Development Practices: An Environmental Scan. *Merits* **2024**, *4*, 35–50. <https://doi.org/10.3390/merits4010003>

Academic Editor: Wendy M. Purcell

Received: 30 October 2023

Revised: 25 January 2024

Accepted: 30 January 2024

Published: 6 February 2024



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Keywords: leadership development; ROI; work-based learning; 70:20:10; coaching; mentoring

1. Introduction

Increasingly, organizations of all types are investing in leader and leadership development. The dynamic field of constructing leadership development theory and research continues to provide practitioners with a more scientific and evidenced-based basis to plan and implement leaders and leadership development interventions [1–3]. While the extant literature demonstrates significant contributions to understanding leader and leadership development and offering tools for enhancing leadership development, there is still much to be learned [2,4]. Practical, useful resources for both practitioners and academics and the robust evaluation of the effectiveness of development interventions are uncommon.

We draw upon the literature and theories from the field of leadership development, which includes those bodies of literature focused on leader and leadership development theory to practice, adult learning theories, and leadership development programs and interventions and their evaluation. Figure 1 provides a visual depiction of this conceptual framework, which scaffolds this study and guides the development of the data collection instrument (refer to Table 1).

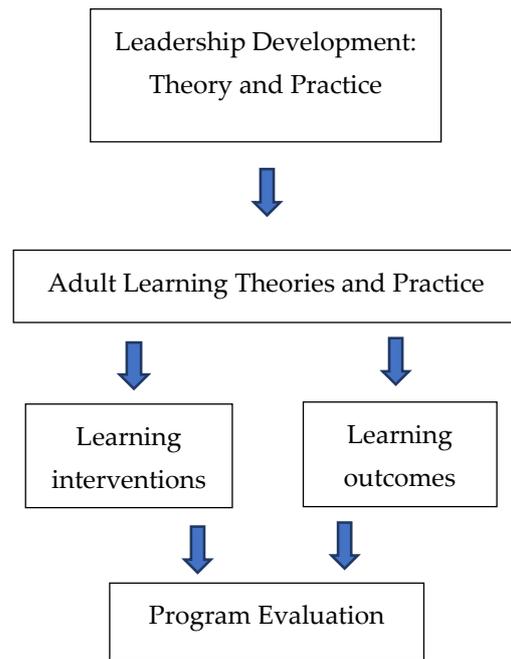


Figure 1. Conceptual framework.

Table 1. Summary of the survey instrument structure.

Survey Section	Questions	Description	Alignment to RQs
Consent	Q1	Consent to participate	Ethical requirement
Demographics	Q2–6	Organizational size, type, industry sector, etc.	
Drivers, needs, and activities	Q7–9 and Q13	Drivers, needs, decision-making, and leadership development activities	RQ2
Theories and frameworks	Q10–12 and Q14–16	Adult learning theories and principles, leadership frameworks, and 70:20:10	RQ1
Types and frequencies of interventions	Q17–18	Range of leadership development interventions and combinations thereof	RQ2
Program evaluation	Q19, Q20, and Q21	Effectiveness, success, and ROI	RQ3

Traditionally, research and practitioners have focused on learned personality traits, behaviors, and skill acquisition using training interventions. However, the usefulness of training interventions is limited, as training tends to be short-term: a one-dimensional event to solve known problems and therefore does not meet the needs and challenges faced by contemporary leaders [2,5]. Advances in leadership development research and theory reveal the inherent complexities and longitudinal nature of leadership development. The science and practice of leadership development includes understanding and planning intrapersonal (leader) and interpersonal leadership development [2,6]. The evaluation of leader and leadership development, similarly, needs to reflect the many dimensions and timeliness of development criteria that operate at multiple levels of leader and leadership development.

A recent special issue of *The Leadership Quarterly* published in 2021 focused on *Advancing the science of 21st-century leadership development: Theory, research and practice*. The editorial of this special issue posited seven ongoing challenges for leadership development science [7]. Three of these challenges are the focus of this study including theoretical foundations of leadership development; practices and methods of leadership development; and accurately estimating the return on investment (ROI) from leadership development interventions [7]. In terms of the first, there is a general consensus that leadership development programs appear to be ad hoc in practice [8] with theory-informed practice being the exception rather than the norm [7,9]. Arguments have been made that a more holistic view of leadership development needs to incorporate adult learning and development theories and principles along with leadership theory [9,10].

The second focus is leadership development practices and methods. A meta-analysis of 355 leadership training programs found key indicators of the most effective leadership training interventions were those that include the following elements: a needs analysis and embedded feedback; a variety of delivery methods, including training sessions that were spaced across time, and face-to-face delivery in the workplace [11].

“We are awash in leadership development practices, techniques, and methods yet rigorous causally identified research assessing the efficacy and economic value of these interventions is slim” [7] (p. 4), which brings us to the third focus, ROI. We take a broader view of this and include and explore factors influencing the effectiveness and success of leadership development programs as well as ROI methods. We refer to this under the umbrella term of program evaluation, which includes how the leadership development program need is assessed, the design and implementation of the program/intervention, and its impact (effectiveness and success) and returns on investment.

One popular approach to leader and leadership development is the 70:20:10 rule [12,13]. Described as “breakthrough” research in 1987, the 70:20:10 model of workplace learning proposed leadership development is derived from a combination of activities as applied by the 70:20:10 rule [14]. That is, in the ratio, 70% is learned on the job, 20% is learned through coaching and mentoring, and the remaining 10% is learned from formal education, as such the 70:20:10 model for workplace learning, which gives priority to informal learning activities [14,15]. The rule suggests all successful workplace learning would be designed to include a combined 90% of informal learning activities. The importance of informal, experiential, and social learning interventions to complement traditional developmental approaches in the workplace is broadly acknowledged [2,16]. The original concept was based on the research of McCall, Lombardo, and Morrison [14], who found leadership development success in the workplace was achieved when individuals, identified as potential managers and leaders, were provided challenging workplace assignments with accountability for results. Their original work acknowledged the importance of careful planning of the individual development programs that included coaches to support learning, support reflection, and help apply the learning. However, the 70:20:10 rule is widely criticized as an arbitrary ratio that has little foundation in robust research [12,17,18].

This study aims to investigate contemporary approaches to leadership development (LD) in the workplace by surveying a sample population of human resource (HR) professionals and practitioners working in organizations across all sectors of the Australian economy. HR professionals are those most likely to be responsible for learning and development interventions such as leadership development. Currently, there is little evidence as to how and why HR professionals and practitioners give priority to different approaches in the design and implementation of leadership development programs in their organizations, what theories they draw upon in designing these leadership development programs, or how they measure the return on such investments. To support this aim, we reviewed similar leadership development surveys and associated studies that have been conducted over the last twelve years and published in both scholarly journals (Supplementary Table S1) and in the grey literature (Supplementary Table S2). Due to word limitations, we cannot include references to all these in the main text. These supplementary tables provide a

summary of these leadership development surveys and associated research reports and are a useful resource.

This study seeks to undertake an environmental scan of contemporary workplace practices in relation to leadership development programs to identify the leadership development models, frameworks, practices, and learning approaches utilized and seeks answers as to how and why learning development practitioners utilize different approaches by asking the following exploratory research questions:

- RQ1: What theories, models and frameworks are informing the design of workplace leadership development programs?
- RQ2: What is the mix of interventions and activities within leadership development programs?
- RQ3: How are leadership development interventions and programs evaluated?

The findings have practical implications for HR professionals and practitioners to consider when designing, assessing, and delivering leadership development programs in their workplace. The findings also provide insights into informing a future research agenda to address some of the findings and to formulate a more precise set of investigations to support contemporary leadership development practices and programs.

2. Materials and Methods

The primary objective of this study was to scope out current leadership development practices within Australian organizations and explore the mix of interventions being utilized and how organizations are measuring the effectiveness, success, and return on investment (ROI) of these leadership development programs. The approach taken to this study is based on the premise that an initial environmental scan of contemporary practices is needed to ensure a wide variety of foundational insights are gathered to assist in formulating a more precise and comprehensive future research agenda. As such, a deliberate exploratory quantitative survey design was used to try and capture leadership development program practices across a wide range of organizational settings. A survey instrument designed to gather information based on contemporary leadership development practices from HR practitioners was developed [19]. Given the field's strong practitioner orientation [7], HR professionals are those most likely to be responsible for learning and development interventions such as leadership development in organizations. Key areas of insight gathering revolve around the following: leadership development program activities and interventions; theories, models, and frameworks used; learning systems and processes; and program evaluation metrics (success and effectiveness factors and ROI).

The survey contained 22 questions and was disseminated online to members of the Australian Human Resources Institute (AHRI). The AHRI is the professional body for HR professionals in Australia. Table 1 below provides a summary of the structure of the survey instrument. Two questions not listed in the Table related to the COVID-19 pandemic and interest in participating in a future interview and, therefore, are not relevant for the purposes of this paper.

Ethics approval to conduct this study was granted by Torrens University Australia's Human Research Ethics Committee (Approval HREC #0127). SurveyMonkey software was utilized for the online survey instrument, and SPSS software was used for descriptive univariate, bivariate, and multiple response analyses.

A limitation of this study was that it targeted paying members of a professional body and, therefore, was not distributed to practicing HR professionals who are not members of this body. We therefore have not captured perspectives from this part of the larger HR professional population.

Sample

The survey received 408 responses from the target sample population including HR professionals and members of AHRI; however, after data cleaning, 297 responses were analyzed. Just over one-third of the respondents were from very large organizations

(1000+ staff) followed by one-quarter of the respondents from medium-sized organizations (50–249 staff). A further 20% of the respondents were from large organizations (250–1000 staff). Small (2–14 staff) and small/medium (15–49 staff) organizations made up a combined 17% of the respondents. In terms of organizational type, private sector organizations made up 37.7% of the respondents, followed by public sector organizations (24.9%) and not-for-profit organizations (21.9%). ASX-listed organizations represented 3.4% of the respondents, and 6.4% of the respondents were from multinational organizations.

The HR professional respondents were from an array of industry sectors across the Australian economy; however, the top three industry sectors represented were Health Care and Social Assistance (18.5%), followed by Education and Training (14.5%), Professional, Scientific and Technical Services (11%), and Public Administration and Safety (10.6%).

3. Results

3.1. Leadership Development: Drivers and Needs

When asked what was the main driver for developing leadership development competencies in their organizations, just over half of the respondents indicated the main driver was “Ensuring delivery of business results” (51%) followed by “Retaining talent” (16.5%) and “Ensuring leadership continuity” (14.6%). These results were cross-tabulated with organizational size, as depicted in Figure 2 below. There are some notable differences in relation to firm size across these cross-tabulations. Very large organizations have a distinct driver orientation toward “Ensuring delivery of business results”, followed by medium-sized firms and large firms. In fact, this represented the highest score for all firm sizes except for sole proprietors. Very large-, large-, and medium-sized organizations gave equal weight to “Ensuring leadership continuity” followed by “Retaining talent”, although this rated slightly higher for medium-sized firms.

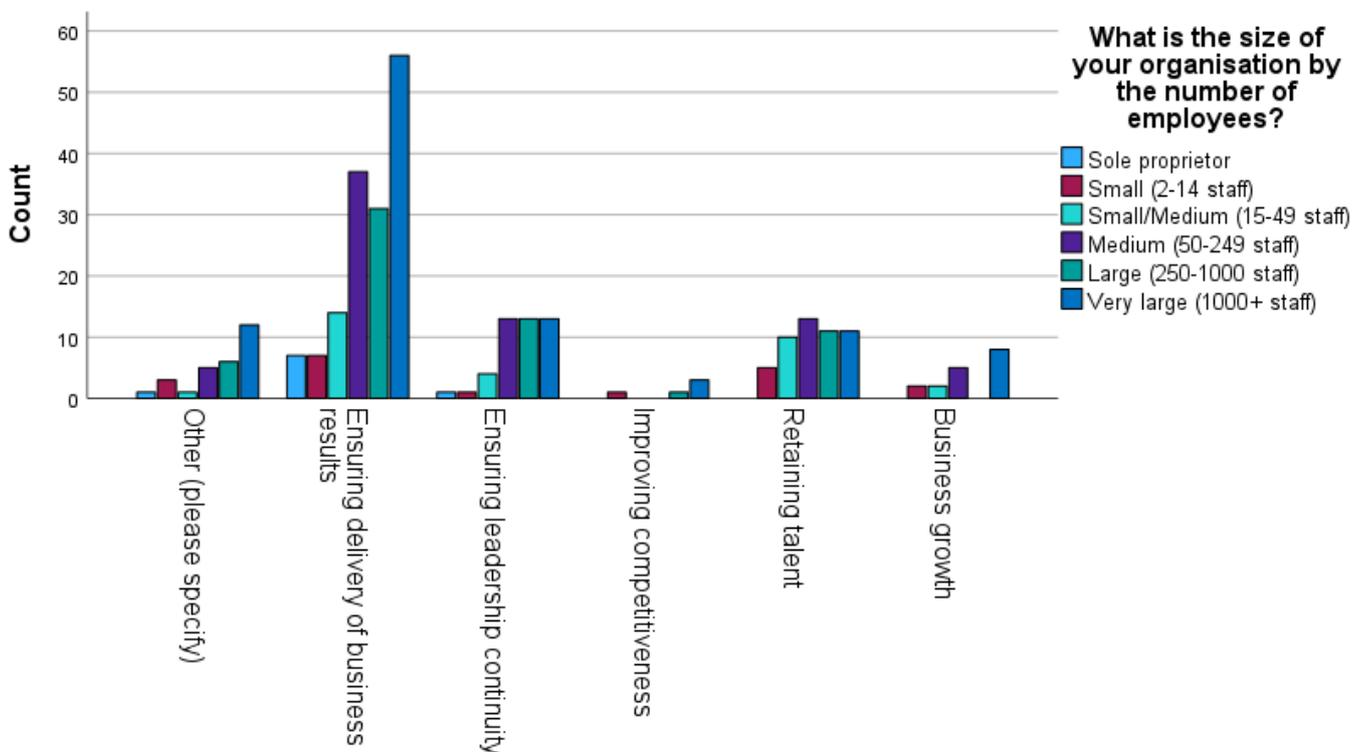


Figure 2. Main drivers for developing leadership and organizational size.

Survey respondents were asked how individual leadership development needs were determined in their organization (multiple responses). Figure 3 displays these results (weighted average) with “Performance review processes” being the most common method

to identify needs, followed by “Employee-initiated” processes, with “Succession planning”, “Core leadership and management competencies required for the role”, and “Business and divisional strategy” representing the top five need determinates. This represents a combination of micro-level need determinates (individual performance reviews and employee-initiated) and meso-level need determinates (succession planning, leadership role competencies, and business and divisional strategy).

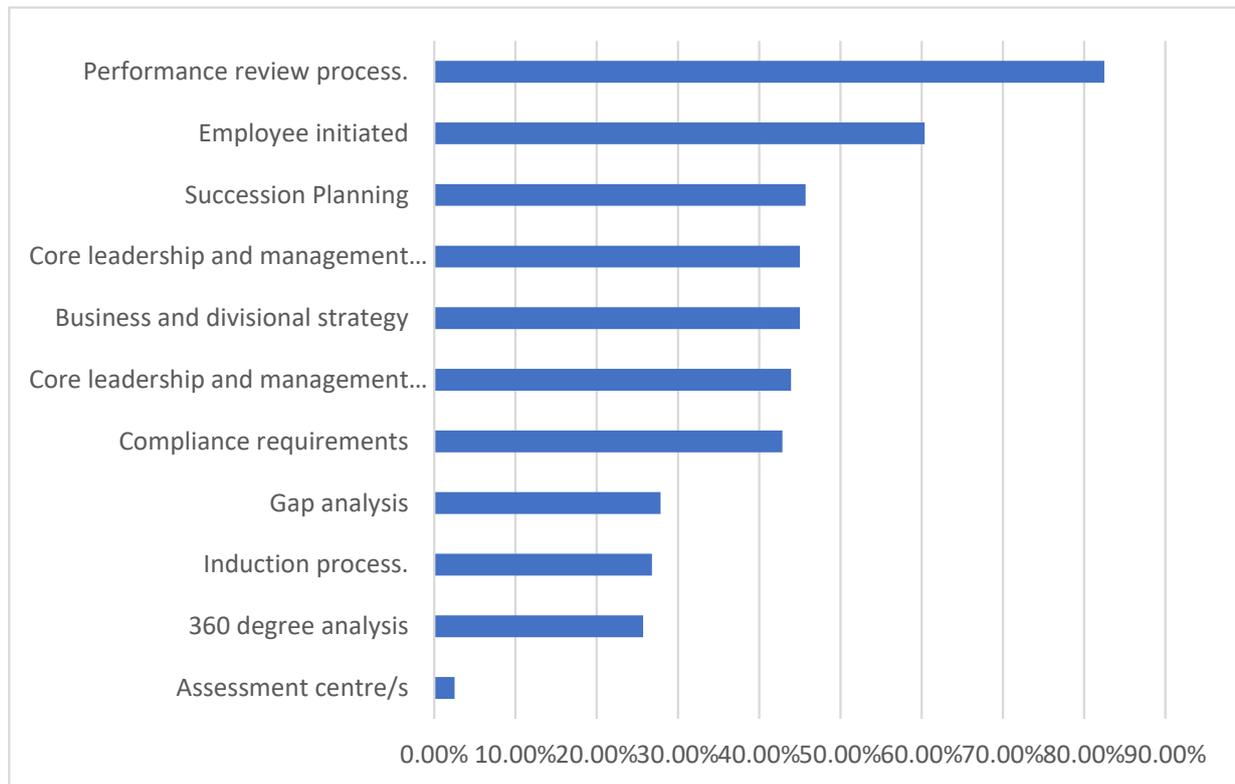


Figure 3. How individual leadership development needs are determined.

3.2. Theories and Frameworks

Respondents were supplied with a list of some of the most common adult learning theories and principles utilized in work-based leadership development interventions and were asked to indicate if they apply any of these when designing their leadership development programs using a multiple-response question. The results are displayed in Table 2 and demonstrate that overwhelmingly, the respondents were “not sure” (39.1%), followed by the “70:20:10 model” (35.4%), “Reflective learning” (23.9%), “Experiential learning” (21.9%), and “Andragogy/self-directed learning” (20.9%).

When asked if their organization had a leadership competency or capability framework, just under 50% of respondents indicated they did not, whilst 42% indicated they did. Figures 4 and 5 depict those organizations that have a leadership competence framework and those that do not, cross-tabulated with organizational size. Respondents were then asked what leadership competency/capability framework they used, and the majority indicated “Bespoke frameworks”, whereas others indicated set public sector-based leadership competency frameworks (both federal and state or sector-based). The data show that two of three large organizations have one, whereas smaller organizations tend not to.

Table 2. Adult learning principles and theories applied in leadership development programs.

	Responses		
	N	Percent	Percent of Cases
Not sure	116	17.4%	39.1%
70:20:10 model for L&D (Lombardo and Eichinger)	105	15.7%	35.4%
Reflective learning (DA. Schon)	71	10.6%	23.9%
Experiential learning (D. Kolb)	65	9.7%	21.9%
Andragogy/self-directed learning (M. Knowles)	62	9.3%	20.9%
Learning organization (P. Senge)	58	8.7%	19.5%
Action learning (A. Revans)	57	8.5%	19.2%
Project-based learning (J. Dewey)	48	7.2%	16.2%
Social Learning Theory (A. Bandura)	27	4.0%	9.1%
Transformational Learning (J. Mezirow)	22	3.3%	7.4%
Other	16	2.4%	5.4%
Constructive Alignment (J. Biggs)	13	1.9%	4.4%
Constructivism (J. Piaget)	8	1.2%	2.7%
	668	100%	224.9%

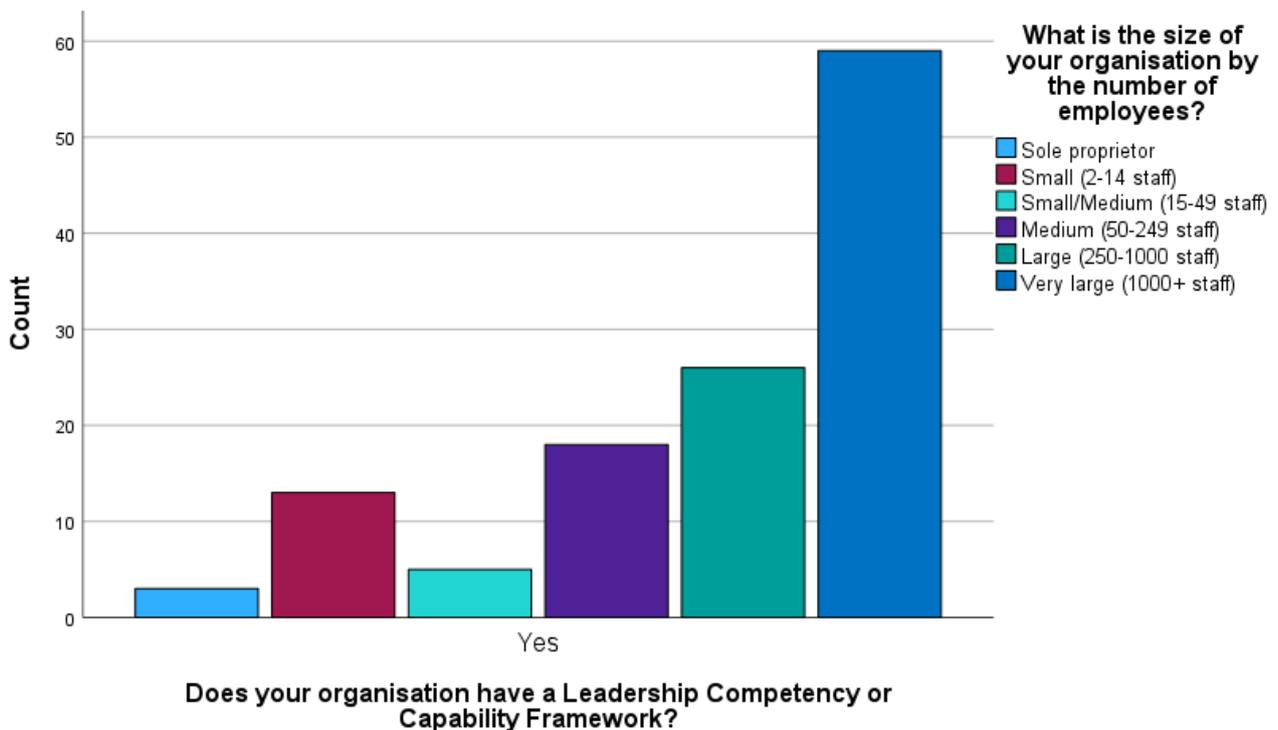


Figure 4. Organizations with a leadership competency framework.



Figure 5. Organizations without a leadership competency framework.

When asked if they were aware of the 70:20:10 framework, almost 60% of the respondents indicated they were, whilst 25% indicated they were not, and 15% were not sure.

3.3. Types and Frequencies of Interventions

Respondents were also asked to indicate the top three activities included in their organization’s leadership development programs, and the results are displayed in Figure 6 (multiple responses). In-house training and E-learning/online learning are the top two activities, and this is followed by two external activities (external workshops and formal education). Coaching and mentoring also feature along with individual (customized) development/career planning. The 70:20:10 rule discussed earlier argues that the ratio of learning should ideally be 70% learned on the job, 20% learned through coaching and mentoring, and the remaining 10% learned from formal education. If we categorize the activity results from Figure 3 against this ratio, we see that the top four activities are classified as formal learning (the 10% ratio of the 70:20:10 model) and the array of on-the-job training activities are the lowest ranking.

The respondents were asked to indicate which types of interventions were utilized in leadership development interventions or programs either “Independently”, those that are “Used in combination with other types of interventions”, those that are “Used both independently and in combination”, and those that are “Not used”. Table 3 summarizes the top five interventions for each of these three categories (used independently, used in combination, and used both independently and in combination).

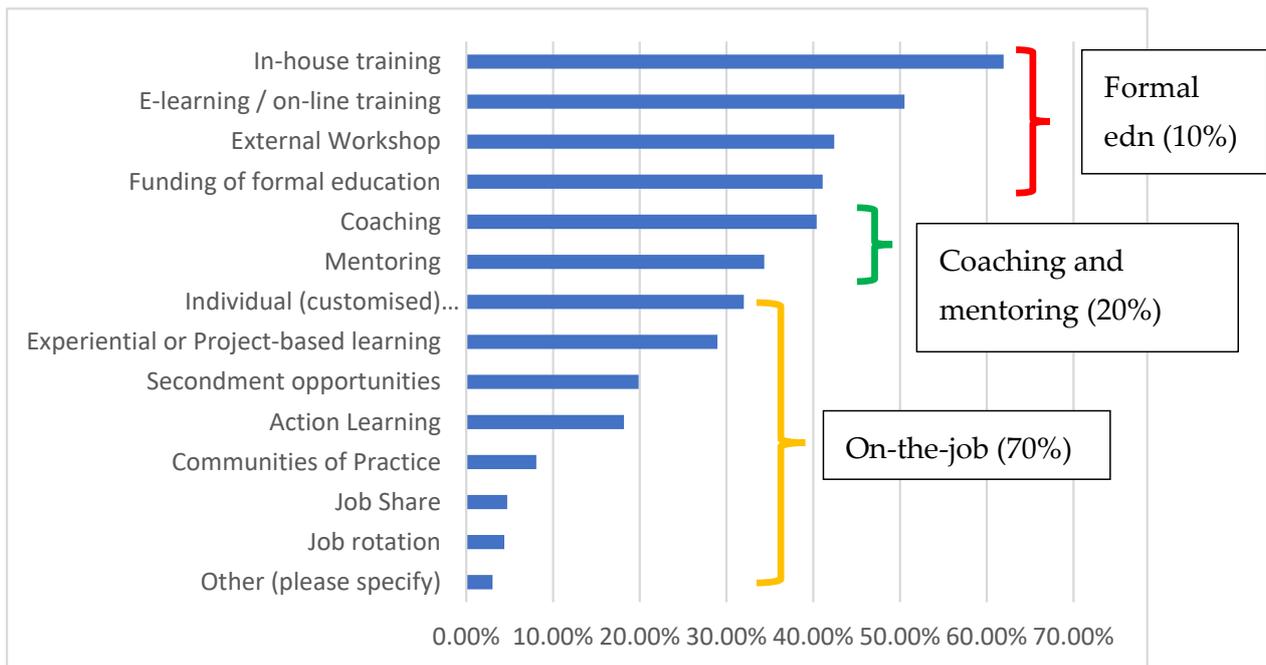


Figure 6. Activities utilized in leadership development programs.

Table 3. Types and combinations of leadership development interventions.

Independent Intervention	Used in Combination with Other Interventions	Used Both Independently and in Combination
Funding of formal education (20.7%)	In-house training (37%)	External workshops (39%)
Mentoring (20.7%)	E-learning (32%)	E-learning (35.8%)
Coaching (20.7%)	Experiential or project-based learning (28.5%)	In-house training (35%)
External workshops (17.7%)	Coaching (28%)	Coaching (32.8%)
Individual (customized) development/career planning (17.7%)	Mentoring (27.6%)	Funding of formal education (31.5%)

The three least-used interventions were “Job share”, “Job rotation” and “Secondments”.

3.4. Program Evaluation

The respondents were asked what were the three most important factors that influence the effectiveness of their organization’s leadership development initiatives. The top three answers for this multiple-response question were: “Engagement of the participants and their stakeholders” (64.7%), followed closely by “Senior management support” (63.7%) and “Availability of resources (time and budget)” (54.2%). Table 4 provides details of the results of this multiple-response survey question.

The respondents were asked to indicate the top three most important factors that influence the success of their organization’s leadership development initiatives, as depicted in Table 5. The top three influences for this multiple-response survey question indicated “Senior management support in terms of priority and mindset” (72.1%), followed by

“Availability of resources, such as funding and time” (55.3%) and “An organizational focus on people and talent management” at 35.3%.

Table 4. Top three factors influencing the effectiveness of leadership development initiatives.

	Responses		
	N	Percent	Percent of Cases
Engagement of the participants and their stakeholders	123	21.4%	64.7%
Senior management support	121	21.1%	63.7%
Availability of resources (time and budget)	103	17.9%	54.2%
Ability to assess individuals’ leadership and management development needs	60	10.5%	31.6%
Organizational learning culture focused on talent management	57	9.9%	30.0%
Ability to measure improvements	34	5.9%	17.9%
Selection of participants for LMD programs/activities	31	5.4%	16.3%
The structure of learning systems and processes for LMD leadership program/s	28	4.9%	14.7%
Selection and collaboration with external suppliers of LMD	12	2.1%	6.3%
Other	5	0.9%	2.6%
	574	100.0%	302.1%

Table 5. Top three influences on the success of leadership development programs.

	Responses		
	N	Percent	Percent of Cases
Senior management support in terms of priority and mindset	137	23.3%	72.1%
Availability of resources, such as funding and time	105	17.8%	55.3%
An organizational focus on people and talent management	67	11.4%	35.3%
Quality of learning facilitator/s	58	9.8%	30.5%
Ability to assess individuals’ leadership and management development needs	50	8.5%	26.3%
Timely follow through/feedback on leadership and management development activities	49	8.3%	25.8%
Having a formal leadership and management development program	42	7.1%	22.1%
Ability to measure improvements in productivity	38	6.5%	20.0%
Ongoing and targeted feedback to individual participants	27	4.6%	14.2%
Other	9	1.5%	4.7%
Having rewards and incentives	7	1.2%	3.7%
	589	100.0%	310.0%

The top three influences for successful leadership development initiatives are organizationally based (“Senior management support”, “Availability of resources”, and “Organizational focus on people and talent”). The next three are focused on the leadership development facilitator and their facilitation skill sets (“Quality of facilitator”, “Ability to assess needs”, and “Timely follow through and feedback”).

Survey respondents were asked how the ROI is measured on leadership development interventions in their organizations (multiple responses), as displayed in Table 6 below. The top three measures are “Self-assessment by participants in leadership and management development activities aligned with a defined leadership competency framework” (65.1%), along with “Assessment of changes in performance/productivity of participants in leadership and management development activities” (65.1%) and “Climate or organizational health surveys” (55.0%).

Table 6. Return on investment measures for leadership development initiatives.

Types of ROI	Responses		
	N	Percent	Percent of Cases
Self-assessment by participants in leadership and management development activities aligned with a defined leadership competency framework	123	19.2%	65.1%
Assessment of changes in performance/productivity of participants in leadership and management development activities	123	19.2%	65.1%
Climate or organizational health surveys	104	16.3%	55.0%
Organizational increase in performance/productivity/profitability following leadership and management development initiatives	98	15.3%	51.9%
Leadership and management development initiatives are not measured for return on investment	61	9.5%	32.3%
Specific measurements aligned to individual competencies and a defined leadership competency framework	55	8.6%	29.1%
Other	39	6.1%	20.6%
Do not know	36	5.6%	19.0%
	639	100.0%	338.1%

4. Discussion

The following discussion of the findings of this exploratory study is presented as responses to this study’s three research questions.

RQ1: What theories, models and frameworks are informing the design of workplace leadership development programs?

The findings indicate a substantial majority of current practice is not informed by evidence-based theory or practice. Firstly, the survey results indicate that approximately 40% of the respondents are “Not sure” what theories or models inform the development of their leadership development interventions. Secondly, the most recognized adult learning model is the 70:20:10 model.

The value of including different approaches to learning development interventions is reflected in the 70:20:10 “rule” and its increasing popularity both in Australia and

internationally. Evidence shows that the 70:20:10 model is being accepted and implemented across a range of organizations, from small enterprises to multinational corporations [8,13,15,16,18,20,21]. Yet, while there is significant discussion about how 70:20:10 might be applied within an organization's development strategy, there is no evidence to validate the effectiveness of the 70:20:10 model.

According to [17], the lack of research and understanding of individual learning processes in the design of leadership development programs in the organizational context has led organizational learning and development practitioners and professionals to adopt unsubstantiated approaches when designing and implementing learning processes in leadership development programs in their organizations [17,18]. The 70:20:10 model encourages learning and development professionals to value the integration of experiential learning experiences at work, turning the focus to the workplace as a learning environment. However, without a foundation in robust research, 70:20:10 is an arbitrary ratio that does not consider the dynamic interplay, complexities, and variables/factors in the workplace context that influence workplace developmental interventions [12,17,21]. There remains a lack of disciplined direction on how to plan and design facilitated individual workplace development programs that include support for reflection and support for the application of learning as the 70:20:10 model originally intended.

Again, this points to a lack of theoretically informed foundations for the design of leadership development programs. This study confirms the view that "interventions designed to develop leaders and those intended to develop shared leadership capacity are rarely based on any theoretical model" [7] (p. 3) and reinforces this theory-to-practice gap.

RQ2: What is the mix of interventions and activities within leadership development programs?

This theory-to-practice gap may go some way to explaining why the top four activities included in leadership development programs (Figure 6) are all "formal learning" (the 10% of the 70:20:10 framework that is so widely recognized in the industry).

This study found that the mixing of intervention types and activities is utilized in leadership development programs; however, those that are most commonly mixed include in-house training, E-learning, coaching and mentoring, and, in some instances, external workshops and funding of formal learning. Those approaches used individually, and not surprisingly so, included external workshops and individual customized development and career planning. Nonetheless, a variety of delivery methods is part of a set of factors for effective leadership training design, which also includes conducting a needs analysis, embedding feedback, and training sessions that are spaced across time and face-to-face delivery in the workplace [11]. We contend that optimally effective leader capability development interventions necessitate all three elements of the 70:20:10 rule (not the ratios, however) along with effective reflective practice [10].

Many leadership development programs combine structured classroom-type instructional activities with more experiential learning activities, which supports the need for adult learning theories and principles to be part of the theory that informs such interventions and activities [7]. These activities will vary given the approach chosen for the leadership development program such as a competency-based approach where a competency framework is utilized. When asked if their organization had a leadership competency or capability framework, just under 50% of the respondents indicated they did not, whilst 42% indicated they did, with the majority of these respondents indicating they had a bespoke framework (larger organizations are more likely to have them). This is not unexpected given that leadership competency frameworks dominate and "There are many versions of these frameworks that describe bundles of capabilities, knowledge, and skills" [7] (p. 4). It is argued by [7] (p. 4) that "Competency frameworks are appealing because they atomize the complex construct of leadership into discrete, seemingly concrete, variables. To organizations and their leaders, they are seductive in offering a structured library of benchmark leadership attributes". We acknowledge that there is an ongoing debate about the value

of competency-based approaches. We take the view, however, that competency standards and frameworks play a critical role in communicating what effective leadership and management performance involves in a given context and that this is important to program effectiveness. Also, multiple studies have underscored the positive influence of social, emotional, and cognitive competencies on leadership and management performance [10,16], so the approach requires further research and consideration.

The competency debate concerns the purpose or the focus of leader development. The survey also considered what influenced decisions about the content and design of interventions. Key influences on what informs organizational decisions related to leadership development offerings and program design indicate the highest-ranked influences that are always considered are “Organizational strategy” and “Monetary cost”. The main determinants of individual leadership development needs include a combination of micro-level needs (individual performance reviews and employee-initiated) and meso-level needs (succession planning, leadership role competencies, and business and divisional strategy). Needs analysis is a key determinant of program success [11].

RQ3: How are leadership development interventions and programs evaluated?

As indicated, we grouped a set of survey questions and results related to aspects of program evaluation to address this research question (factors influencing the effectiveness and success of programs and ROI). The results point to the most influential factor in relation to the effectiveness and success of leadership development programs as being the importance of senior management in supporting and resourcing leadership development initiatives. This is also supported by the results that indicate the main driver for developing these types of programs is ensuring the delivery of business results and ensuring leadership continuity. It is interesting to note that another influential factor was the organizational learning culture, which valued people and talent management.

The results from this study in terms of ROI measures for leadership development interventions indicated low-level evaluation methods and measures that lack any level of robustness. These top three measures represent an individual self-assessment measure (micro level), a peer/supervisor assessment measure of the individual leadership development participant (dyad level), and a broader organizational level indicator (meso level). These approaches to measuring ROI are highly subjective (self-assessment and peer assessment) and, in the case of organizational health surveys, very broad-based and not specific to those participants who have undergone leadership development interventions. This lacks direct and rigorous measurement against set performance indicators, measures, or proxies.

Organizations care about leadership; however, their interest in leadership lies not in theories and models. Organizations are interested in the most efficient and cost-effective ways to develop leaders and leadership [2,22]. While much is still to be learned, evaluating leader and leadership development is possible and necessary [5]. Most extant theories of leader and leadership development infer or imply development implications; therefore, it is essential for academics and practitioners alike to fully scrutinize and evaluate development methods and their application. Evaluating specific development processes and the effectiveness of those processes of leader and leadership development is important; however, the evaluation of developmental interventions is often poor [5,7,21–23]. Given the large financial and resource investment in leaders and leadership development in organizations, any leadership development must include an evaluation component. Measuring job performance and performance change over time is a common method used to evaluate leadership development interventions.

5. Conclusions

This study and its findings provide practical implications for HR professionals and practitioners to consider when designing, assessing, and delivering leadership development programs in their workplace. It provides indicators for determining leadership develop-

ment needs, the most influential factors to consider for successful leadership development interventions, and a variety of delivery methods, spaced sessions across the program, on-site delivery, and the inclusion of approaches both formal- and informal-based work that can be combined to meet leadership development training needs. The key success factors including support and resourcing from senior management and an organizational learning culture are key conditions that HR professionals will need to ensure if any leadership development interventions are to be successful.

A major finding of this exploratory study is that a substantial majority of current practice is not informed by evidence-based theory or practice and points to significant theory-to-practice gaps. This confirms assertions as to the ad hoc approach taken toward leadership development [8,24], with theory-informed leadership development programs and practice being the exception to the rule [9,25]. Given the findings, we propose a future research agenda that encapsulates further investigations into the theory–practice gap evident in these findings. Given the lack of knowledge of adult learning principles and theories indicated in the findings and the over-reliance on the 70:20:10 rule, we propose conducting future studies that research the effectiveness of mixing interventions and testing the 70:20:10 rule. Quasi-experiential program evaluation research designs would be an appropriate approach in this case. These can include both theory-driven product and process evaluation designs (refer to [20,21,24,25] for examples of such studies). These usually include pre- and post-tests and evaluations, which can include collecting both qualitative and quantitative data and using integrated development markers or proxies. These markers, proxies, or key performance indicators need to be derived from extant research and theory to enable a more rigorous and theoretically informed approach to the design of leadership development programs in organizational workplaces. A highly relevant and comprehensive framework has been put forward by Black and Earnest (2009): the EvaluLEAD framework and associated program evaluation instrument titled the Leadership Program Outcomes Measure [22,26]. This framework and associated instruments could be valuable for both practitioners and researchers alike.

Given the complex interplay of workplace factors and varying contexts in which leadership development interventions take place, further research is also needed to explore innovative techniques for evaluating the impact of leadership development programs. We see these types of innovations as being mixed methods leadership development program evaluations that not only mix methods but also mix methodologies. We argue this would provide a more rigorous approach to evaluating leadership development programs. For example, Longitudinal Mixed Methods Research studies (L-MMR) collect both quantitative and qualitative data on leadership development participants or cohorts across a set of time points. This enables researchers to gain insights into the impact of leadership development interventions across time and indicators of the transfer of learning to work-based practices from multiple and varied data sources. Mixed Methods Action Research (MMRA) designs would also be helpful, especially with leadership-in-action type interventions or when the leadership development intervention is combined with transformational change initiatives, such as introducing agile methodologies. Again, this would involve collecting both qualitative and quantitative data at different points of time across the action learning cycles and from multiple data sources. These types of research designs ensure the triangulation of data and also the analytical integration of the qualitative and quantitative data. This is a key characteristic and quality criteria indicator of mixed methods research designs, which combine methods and methodologies to counter the weakness of using one type of method or methodology in isolation. This allows for the research to collect wider perspectives and offers greater insights.

Supplementary Materials: The following supporting information can be downloaded at: <https://www.mdpi.com/article/10.3390/merits4010003/s1>, Table S1. Academic leadership development surveys; Table S2. Grey literature leadership development surveys.

Author Contributions: Conceptualization, R.C., G.H. and C.E.; methodology, R.C., G.H. and C.E.; software, R.C.; formal analysis, R.C.; investigation, R.C.; data curation, R.C.; writing—original draft preparation, R.C. and C.E.; writing—review and editing, R.C., C.E. and G.H.; visualization, R.C. and C.E.; project administration, R.C. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Institutional Review Board Statement: Ethics approval was granted to conduct this study by Torrens University Australia’s Human Research Ethics Committee (Approval HREC #0127).

Informed Consent Statement: Informed consent was obtained from all subjects involved in this study.

Data Availability Statement: The data are unavailable due to ethical restrictions.

Conflicts of Interest: The authors declare no conflicts of interest.

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