

***Exploratory Evaluation of Entrepreneurial Training at the
Entrepreneurship Development Centers (CDE) in Algeria: Application of
the New World Kirkpatrick Model***

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Abstract:

This exploratory study examines training at the Entrepreneurship Development Centers (CDE) within Algeria's NESDA program. Seventeen semi-structured interviews were conducted with project holders. Using the New World Kirkpatrick model, the training was evaluated across four levels: reaction, learning, behavior, and results. Findings show high satisfaction with content and guidance, improved entrepreneurial skills, and better understanding of financial, legal, and managerial aspects. Some challenges remain for participants from non-economic backgrounds. The study concludes that the training is relevant, with a need to reinforce practical modules and adapt learning paths to participants profiles.

Keywords: NESDA; CDE; entrepreneurship; training; New World Model.

1. INTRODUCTION

Entrepreneurship is today a strategic lever for economic diversification and the fight against youth unemployment. In Algeria, the state has implemented several successive support mechanisms for business creation: ANSEJ, ANADE, and more recently NESDA, aiming to promote employment and local dynamism (cde.dz/, 2025; nesda.dz, 2025).

NESDA introduces a major innovation: mandatory training for project holders at the Entrepreneurship Development Centers (CDE). This training, averaging three weeks, aims to equip participants with skills in management,

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financial planning, marketing, business law, and entrepreneurial strategy (nesda.dz, 2025).

Or, despite the strategic importance of this program, no scientific study has, to date, evaluated the perception and effectiveness of this training among project holders. This exploratory research therefore seeks to fill this gap, drawing on the New World Kirkpatrick evaluation model, recognized for its robustness in analyzing training programs (J. D. Kirkpatrick & Kirkpatrick, 2016).

Thus, the research question is:

To what extent does training provided at CDEs contribute to strengthening the skills, confidence, and entrepreneurial maturity of project holders enrolled in the NESDA program?

2. Literature Review

2.1 Training Evaluation: From Classical to New World Kirkpatrick Model

Since Donald Kirkpatrick's pioneering work (D. L. Kirkpatrick, 1959), training evaluation has relied on four levels:

Table N⁰(01) : New World Kirkpatrick Training Evaluation Model

Level	Evaluation Objective
Reaction	Learners satisfaction and engagement
Learning	Skills and knowledge acquired
Behavior	Transfer of learning to professional context
Results	Organizational or economic effects of training

Source: (D. L. Kirkpatrick, 1959)

The New World Kirkpatrick model (2016) revisits this approach by integrating strategic alignment. It focuses not only on measuring learning but also on understanding how the environment (support, motivation, content relevance) influences behavior change and results. Several studies validate its relevance in entrepreneurial training contexts (Martin et al., 2013; Phillips & Phillips, 2022; Tonhäuser & Büker, 2016).

2.2 Public Entrepreneurial Training Programs

Public programs supporting entrepreneurship in emerging countries generally combine three levers: training, mentoring, and financing (Lerner, 2009). In developing economies, training plays a key role in reducing the

failure rate of young businesses (Gatewood et al., 2002; Nabi et al., 2017).

In Algeria, previous studies on ANSEJ and ANADE mostly highlighted administrative and financial difficulties. NESDA's mandatory CDE training represents a major innovation, based on the idea that entrepreneurial success primarily depends on human capital (Becker, 1964).

3. Methodology

3.1 Approach and Sample

This study adopts an exploratory qualitative approach, based on 17 semi-structured interviews conducted in January 2025 with NESDA project holders.

Table N⁰(02) : Demographic Characteristics of the Sample

Demographic Characteristics	Measures		
Age	20-25	26-35	36-43
Frequency	4	9	4
Percentage	24%	53%	23%
Academic Level	University Graduate	National Institute Graduate	
Frequency	17	0	
Percentage	100%	0%	
Professional Situation	Student	Employed	Unemployed
Frequency	4	11	2
Percentage	24%	65%	11%
Gender	Male	Female	
Frequency	9	8	
Percentage	53%	47%	

Source: Data extracted from interviews, January 2025

The sample shows a balanced gender distribution and age diversity. All participants are university graduates. The predominance of employed participants (65%) indicates a strong interest in entrepreneurship as a career transition. Four participants come from non-economic backgrounds (two doctors, one dentist, and one biologist). Participants were recruited via social media awareness groups. The 17 interviews were deemed sufficient to reach theoretical saturation (Morse, 2000).

3.2 Interview Guide Structure Based on New World Kirkpatrick Model

The interview guide uses the New World Kirkpatrick model, which emphasizes feedback between levels and the link between learning and

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organizational performance.

Table N⁰(03) : Interview Guide Structure

Model Level	Evaluation Objective	Sample Questions
Level 1: Reaction	Evaluate satisfaction, relevance, and perception	What did you think about the content, trainers, and duration?
Level 2: Learning	Identify acquired knowledge, tools, and skills	Which skills or knowledge did you master through the training?
Level 3: Behavior	Examine transfer and application of skills	Did you apply the tools learned (BMC, business plan, etc.) in your project?
Level 4: Results	Assess impact on motivation, confidence, and project viability	Did the training influence your motivation and project maturity?

Source: Prepared by the researcher based on New World Kirkpatrick (J. D. Kirkpatrick & Kirkpatrick, 2016)

3.3 Data Collection and Analysis

Interviews (25–35 minutes each) were fully transcribed and manually analyzed using Braun & Clarke’s thematic method (Braun & Clarke, 2006):

- Open coding of recurring ideas;
- Thematic grouping according to the four Kirkpatrick levels;
- Triangulation with official CDE training content to strengthen internal validity.

3.4 Ethical Considerations

Oral consent was obtained from participants. Data were anonymized using codes (P01–P17) and geographic details removed.

3.5 Study Limitations

As with any qualitative study, limitations exist. The small sample size and its concentration in a few wilayas limit generalizability (Morse, 2000). Data are based on participants perceptions at a specific time, without long term follow up. Finally, while the inductive approach allowed detailed understanding of lived experiences, it does not quantify the program’s actual impact.

These limitations do not diminish the exploratory value of the study but suggest complementing it with comparative, longitudinal research including post-creation performance indicators.

4. Results

4.1 Reaction (Level 1): Perception and Satisfaction

Table N⁰(04) : Perception and Satisfaction

Observed Indicators	Results (%)	Observations
Overall satisfaction with training	94 %	High appreciation for content and trainers
Initial sources of information	Univ: 41%; Social media: 35%; NESDA offices: 24%	Universities main channel
Difficulties in understanding accounting	24 %	Only non-economic participants affected

Source: Data extracted from interviews, January 2025

The 94% satisfaction confirms perceived relevance. Accounting concepts remain challenging for about a quarter, especially non-economic participants.

4.2 Learning (Level 2): Acquired Skills and Knowledge

Table N⁰(05) : Acquired Skills and Knowledge

Skill Domain	Results (%)	Observations
Financial planning & cashflow	82 %	Strong improvement in cost mastery & budgeting
Business plan & market study	100%	All participants applied these concepts
Legal framework & admin obligations	100%	Good understanding, useful for future steps
Stock & logistics management	94%	One participant requested deeper focus

Source: Data extracted from interviews, January 2025

All participants reported acquiring new skills in financial planning, business planning, market study, and legal framework. 82% noted significant improvement in understanding costs and financial statements. One participant suggested deeper focus on stock management.

4.3 Behavior (Level 3): Application and Transfer

Table N⁰(06) : Application and Transfer

Application Type	Results (%)	Observations
Business plan preparation	76 %	Long term projection (7 years) remains difficult
Negotiation with suppliers & equipment choice	76%	Effective use of learned tools
Use of financial tools (forecasting)	71%	Non-economists needed additional support

Source: Data extracted from interviews, January 2025

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Although most participants (100%) are still in pre-funding, 76% have applied learning to business plan development or supplier negotiation. Main challenges involve long-term projection and complex financial modeling. Non-economic participants required extra support.

4.4 Results (Level 4): Perceived Impact

Table N⁰(07) : Acquired Skills and Knowledge

Impact Indicator	Results (%)	Observations
Motivation & confidence increased	94 %	Strong self-esteem and entrepreneurial confidence
Strategic vision improved	88%	Better project evaluation & structuring
Understanding economic realities	82%	Awareness of market constraints & profitability

Source: Data extracted from interviews, January 2025

Overall impact is highly positive, 94% report increased motivation and confidence. One participant abandoned a non-viable project, illustrating practical effects. Participants believe training indirectly contributes to local job creation and micro-enterprise development.

5. Discussion

The results confirm NESDA's tangible contribution via CDE training in strengthening entrepreneurial skills and professionalization of young project holders.

At the first level (Reaction), the high satisfaction rate (94%) shows strong emotional engagement, which enhances motivation to learn (Tonhäuser & Büker, 2016). Encouragingly, NESDA training targets a heterogeneous audience including students, employees, and unemployed.

At the Learning level, 82% significantly improved their understanding of financial tools and planning. Difficulties among non-economic participants (24%) suggest the need for differentiated pedagogy, aligning with Nabi et al. who recommend contextualizing entrepreneurial training for equitable learning (Nabi et al., 2017).

Regarding Behavior, 76% have already applied their learning in business plans and supplier negotiations, showing partial but real skill transfer, consistent with Holton & Baldwin (Holton et al., 2003).

At the Results level, 94% report improved motivation, confidence, and

entrepreneurial vision. One participant abandoned a non-viable project, illustrating critical appropriation of acquired tools, reflecting an effective training outcome per the New World Kirkpatrick model (J. D. Kirkpatrick & Kirkpatrick, 2016).

Overall, CDE training plays a central role in project maturation, with a need to reinforce pedagogical approaches for non-economic backgrounds.

6. Conclusion

This study explored the effectiveness of training provided at Entrepreneurship Development Centers (CDE) within Algeria's NESDA program, using the New World Kirkpatrick model. The findings show that the training enhances participants' entrepreneurial skills, confidence, and understanding of financial, legal, and managerial aspects. These results highlight the relevance of structured entrepreneurial training for supporting young project holders and provide evidence for improving similar programs in public contexts.

Limitations include the small sample concentrated in two wilayas and the short-term nature of perceptions without follow-up after business creation. Future longitudinal research, combining qualitative and quantitative indicators, is recommended to assess long-term impact.

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