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GUIDELINES FOR THE COMPETENCY DEVELOPMENT OF TRAINERS IN THE PLASTICS MOLDING INJECTION FACTORIES IN THAILAND

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ABSTRACT

Objective: The aim of this research is to develop guidelines for the competency development of trainers in plastics molding injection factories (PMIF) in Thailand.

Theoretical Framework: A mixed-methods framework is adopted, integrating quantitative data through statistical analyses like means, standard deviations, and regression, alongside qualitative insights from interviews. The framework explores relationships by combining numerical trends with thematic patterns for a comprehensive understanding.

Method: The study population comprises 284 operators and 14 trainers. Data is collected through quantitative and qualitative approaches, including questionnaires and interviews, with statistical analysis applied using percentages, means, standard deviations, relationship analysis, and stepwise multiple linear regression.

Results and Discussion: Guidelines for trainer competency development in PMIF in Thailand focus on three key areas—knowledge, skills, and attitude. Four sub-competencies in the knowledge domain influence training success: knowledge in 1) Teaching Psychology, 2) Trainers' Attitudes, 3) Behavior and Work Analysis, 4) Training and Counseling. In the skills domain, significant sub-competencies include: 1) Teaching Skills, 2) Listening Skills, 3) Computer Proficiency, 4) Behavior and Work Analysis Skills. The significant sub-competencies of the attitude domain include: attitudes toward 1) Modern Research, 2) Trainees' Intentions, 3) Teaching Psychology, 4) Trainers' Attitudes.

Research Implications: Guidelines to enhance trainer competency in Thailand's plastics molding injection industry are provided. Findings influence training programs, workforce development, and industry productivity.

Originality/Value: Key sub-competencies that predict training success are identified in the areas of knowledge, skills, and attitude. Structured approaches to enhance training success are provided, impacting professional practice and training outcomes in industrial settings.

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DIRETRIZES PARA O DESENVOLVIMENTO DA COMPETÊNCIA DOS INSTRUTORES NAS FÁBRICAS DE INJEÇÃO DE MOLDAGEM DE PLÁSTICOS NA TAILÂNDIA

RESUMO

Objetivo: O objetivo desta pesquisa é desenvolver diretrizes para o desenvolvimento de competências de instrutores em fábricas de injeção de moldagem de plásticos (PMIF) na Tailândia.

Estrutura Teórica: Foi adotada uma estrutura de métodos mistos, integrando dados quantitativos por meio de análises estatísticas como médias, desvios padrão e regressão, juntamente com percepções qualitativas de entrevistas. A estrutura explora as relações combinando tendências numéricas com padrões temáticos para uma compreensão abrangente.

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Método: A população do estudo compreende 284 operadores e 14 instrutores. Os dados são coletados por meio de abordagens quantitativas e qualitativas, incluindo questionários e entrevistas, com análise estatística aplicada por meio de porcentagens, médias, desvios padrão, análise de relacionamento e regressão linear múltipla por etapas.
Resultados e Discussão: As diretrizes para o desenvolvimento da competência do instrutor no PMIF na Tailândia concentram-se em três áreas principais: conhecimento, habilidades e atitude. Quatro subcompetências no domínio do conhecimento influenciam o sucesso do treinamento: conhecimento em 1) Psicologia do Ensino, 2) Atitudes dos Instrutores, 3) Análise de Comportamento e Trabalho, 4) Treinamento e Aconselhamento. No domínio das habilidades, as subcompetências significativas incluem: 1) Habilidades de ensino, 2) Habilidades de escuta, 3) Proficiência em informática, 4) Habilidades de análise de comportamento e trabalho. As subcompetências significativas do domínio de atitude incluem: atitudes em relação a 1) Pesquisa Moderna, 2) Intenções dos Trainees, 3) Psicologia do Ensino, 4) Atitudes dos Instrutores.
Implicações da Pesquisa: São fornecidas diretrizes para aprimorar a competência dos instrutores no setor de injeção de moldagem de plásticos da Tailândia. Os resultados influenciam os programas de treinamento, o desenvolvimento da força de trabalho e a produtividade do setor.
Originalidade/Valor: As principais subcompetências que preveem o sucesso do treinamento são identificadas nas áreas de conhecimento, habilidades e atitude. São fornecidas abordagens estruturadas para aumentar o sucesso do treinamento, impactando a prática profissional e os resultados do treinamento em ambientes industriais.

Palavras-chave: Diretrizes para o Desenvolvimento de Competências, Desenvolvimento de Instrutores, Competências dos Instrutores, Indústria de Injeção de Moldagem de Plástico, Fábricas Industriais na Tailândia.

DIRECTRICES PARA EL DESARROLLO DE COMPETENCIAS DE LOS FORMADORES EN LAS FÁBRICAS DE INYECCIÓN DE PLÁSTICOS DE TAILANDIA

RESUMEN
Objetivo: El objetivo de esta investigación es desarrollar directrices para el desarrollo de competencias de los formadores en las fábricas de inyección de moldeo de plásticos (PMIF) en Tailandia.
Marco Teórico: Se adopta un marco de métodos mixtos, que integra datos cuantitativos mediante análisis estadísticos como medias, desviaciones estándar y regresión, junto con perspectivas cualitativas procedentes de entrevistas. El marco explora las relaciones combinando tendencias numéricas con patrones temáticos para una comprensión global.
Método: La población del estudio está formada por 284 operadores y 14 formadores. Los datos se recogen mediante enfoques cuantitativos y cualitativos, incluidos cuestionarios y entrevistas, y se aplican análisis estadísticos mediante porcentajes, medias, desviaciones estándar, análisis de relaciones y regresión lineal múltiple por pasos.
Resultados y Discusión: Las directrices para el desarrollo de las competencias de los formadores en el PMIF en Tailandia se centran en tres áreas clave: conocimientos, habilidades y actitudes. Cuatro subcompetencias en el ámbito de los conocimientos influyen en el éxito de la formación: conocimientos en 1) Psicología de la Enseñanza, 2) Actitudes de los Formadores, 3) Análisis del Comportamiento y del Trabajo, 4) Formación y Asesoramiento. En el dominio de las habilidades, las subcompetencias significativas incluyen: 1) Habilidades pedagógicas, 2) Habilidades de escucha, 3) Competencia informática, 4) Habilidades de análisis del comportamiento y del trabajo. Las subcompetencias significativas del dominio de las actitudes incluyen: actitudes hacia 1) la Investigación Moderna, 2) las Intenciones de los Aprendices, 3) la Enseñanza de la Psicología, 4) las Actitudes de los Formadores.
Implicaciones de la Investigación: Se proporcionan directrices para mejorar la competencia de los formadores en la industria tailandesa de inyección de moldes de plástico. Los resultados influyen en los programas de formación, el desarrollo de la mano de obra y la productividad de la industria.
Originalidad/Valor: Se identifican las subcompetencias clave que predicen el éxito de la formación en las áreas de conocimientos, habilidades y actitudes. Se ofrecen enfoques estructurados para mejorar el éxito de la formación, lo que repercute en la práctica profesional y en los resultados de la formación en entornos industriales.

Palabras clave: Directrices para el Desarrollo de Competencias, Desarrollo de Formadores, Competencias de Formadores, Industria de Moldeo por Inyección de Plástico, Fábricas industriales en Tailandia.

1 INTRODUCTION

The evolving circumstances of the present and future world, particularly Thailand's entry into the ASEAN community in 2019, have intensified competition regarding workforce quality. To remain competitive with ASEAN and other nations, Thailand must enhance its workforce standards. Personnel development in industrial factories is equally essential. It is crucial to equip subordinates with the knowledge, skills, and abilities necessary to perform their assigned tasks efficiently and effectively. This includes fostering appropriate attitudes, competencies, and expertise across various domains to improve the efficiency of products, operations, personnel, and machinery. By doing so, organizations can reduce unfinished work, minimize training time, decrease errors and waste, prevent accidents, boost morale among new employees, and enhance human relations between leaders and subordinates (Tissana, 2018). Leaders play a pivotal role in the development of personnel quality within industrial organizations. If trainers lack the requisite knowledge, understanding, and training skills, or if the training provided is inadequate, employees may develop behaviors that do not align with business needs (Kann, 2018). A survey of trainers in industrial factories revealed that while most medium and large workplaces have their own training departments, there is often a lack of training in effective teaching techniques for trainers.

Research indicates that 66.66% of trainers lack knowledge in teaching techniques (Industry Ministry, 2019), which leads to ineffective transfer methods among internal trainers (Thitiwan, 2018). Additionally, when organizations hire external trainers or experts, they may not possess the specific job knowledge or skills relevant to the technologies used in the factories. Given these challenges, it is essential for workplaces to manage their own training development. Leaders must take an active role in enhancing the quality of personnel involved in training employees, ensuring that the training aligns with the organizational culture and the specific context of industrial plastics injection molding factories.

Recognizing the importance of this issue, the researcher undertook this study to establish guidelines for the competency development of trainers in Plastics Molding Injection Factories (PMIF). This development framework encompasses the essential content of knowledge, skills, and attitudes required for effective training. By building capable trainers, organizations can ensure that workshop operators effectively acquire knowledge that is both relevant and impactful to the industry.

2 OBJECTIVES

To establish guidelines for the competency development of trainers in Plastics Molding Injection Factories (PMIF) in Thailand.

3 SCOPE

The scope of this research are outlined below:

1. The study focuses on the area of Plastics Molding Injection Factories (PMIF) in Thailand, which comprises 815 factories (Plastics of Thailand Institute, 2019).

2. The content of the study examines competencies based on David C. McClelland's framework, which identifies three main competencies: knowledge, skill, and attitude (McClelland, 1973). Additionally, the study considers factors influencing successful training, drawing on Parry's (1997) concept of evaluating the impact of training, as well as training curriculum development (Taweesak, 2015).

3. The time frame for data collection spanned from May to October 2019.

4. The population for this research study is divided into two groups:

4.1 Group 1 – Trainers or teaching experts in PMIF, with data collected through interviews with 14 specifically selected individuals.

4.2 Group 2 – A sample size of 284 operators from PMIF in Thailand, drawn from the overall population of 815 entrepreneurs (Yamane, 1973).

4 METHODOLOGY

This research employed a mixed methodology, incorporating both quantitative and qualitative research methods, with the following steps:

1. study of current training process and challenges: data are collected using a questionnaire administered to 14 specifically selected trainers and teaching experts in Plastics Molding Injection Factories (PMIF) in Thailand.
2. study of factors influencing trainer development: an examination of factors affecting trainer development in industrial factories, both domestically and internationally, is conducted through a review of relevant ideas and theories related to trainer development.

3. tools development and quality assessment: tools are constructed and evaluated based on data gathered regarding the current training conditions and conclusions drawn from the review of related theories and research. The data are analyzed and synthesized to create interview questions and a questionnaire for operators. The questionnaire is assessed using the Index of Item-Objective Congruence (IOC) and Cronbach's Alpha Coefficient. The results showed values ranging from 0.60 to 1.00, with an overall confidence value of 0.977. When considering individual aspects, the knowledge aspect scored 0.936, the skill aspect 0.922, the attitude aspect 0.857, and the factors affecting success scored 0.952.
4. data collection: for qualitative data, interviews are conducted with 14 trainers in PMIF. For quantitative data, a questionnaire is distributed to a sample of 284 operators in PMIF in Thailand. The data are analyzed using statistical methods, including percentages, means, and standard deviations, to examine relationships between variables and conduct stepwise multiple regression analysis. The formulae and calculation of multiple linear regression is defined below:

   The prediction equation in raw score form is expressed as:

$$\mathbf{Y'} = \mathbf{a} + \mathbf{b_1X_1} + \mathbf{b_2X_2} + \ldots + \mathbf{b_kX_k}$$

where:

Y' is the predicted raw score of the dependent variable (criteria);

a is the constant of the prediction equation in raw score form;

$b_1, b_2 \ldots b_k$ are the weighted scores or regression coefficients of the independent variables, from 1 to k (predictors);

$X_1, X_2 \ldots X_k$ represent the raw scores of the independent variables, between 1 and k (predictors);

k, denotes the number of independent variables (predictors);

$\hat{Z}_{y1}$, is the predicted standardized score of the dependent variable (criteria);

$\beta_1, \beta_2 \ldots \beta_k$ are the weighted scores or standardized regression coefficients of the independent variables, from 1 to k,

Thus, the prediction equation in standardized score form is expressed as:

$$\hat{Z}_{y1} = \boldsymbol{\beta_1 X_1} + \boldsymbol{\beta_2 X_2} + \ldots + \boldsymbol{\beta_k X_k}$$

5 RESULTS

5.1 ANALYTICAL RESULTS FROM LITERATURE REVIEW

Based on the literature review on factors influencing successful training, critical attributes impacting trainer development in PMIF in Thailand are identified. The details are summarized in Table 1. According to Table 1, it is determined that the most frequently cited factors, based on peer-reviewed literature and related research, include knowledge, skills, and attitudes.

Table 1

Results from literature review on competencies for trainer development in Thailand.

Main Competencies \ Authors	(Wattana, 2004)	(Civil Servant, 2003)	(Lunn, 2003)	(Boyatizis, 1982)	(Spencer&Spencer, 1993)	(Kerkkiat, 2003)	(Somkid, 2011)	(Arporn, 2004	(McCleland, 1973)	Total
Knowledge	✓	✓	✓	✓	✓		✓	✓	✓	8
Skills	✓	✓	✓	✓	✓		✓	✓	✓	8
Attitude	✓	✓	✓		✓	✓	✓	✓	✓	8
Personality		✓	✓	✓	✓	✓			✓	6
Motivation				✓	✓	✓			✓	4
Behavior			✓			✓			✓	3
Social Role				✓						1
Success						✓				1
Understanding							✓			1

5.2 RESULTS FROM EXAMINING TRAINING PROCESSES

Examining the training process in Thailand revealed both a comprehensive overview and detailed analysis of the main factors employed in training within PMIF in Thailand, which include knowledge, skills, and attitudes. Overall, the interviewees reported that the operational practices varied in their execution, as provided in Table 2.

Table 2

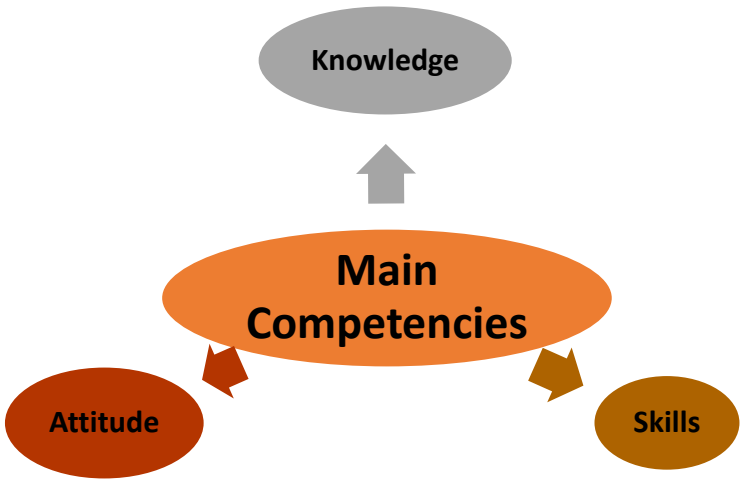
Analytical results of the mean, standard deviation, and interviewees' perceived levels of core competencies in leadership training, both overall and by specific aspects.

Three Main Competencies	$\overline{X}$	SD.	Interviewees' Perceived Levels
Knowledge	3.73	0.59	High
Skills	3.83	0.62	High
Attitude	4.00	0.63	High
Total Means	3.86	0.55	High

As observed in Table 2, the performance of trainers in PMIF in Thailand, based on the three core competencies, knowledge, skills, and attitudes, is predominantly rated at a high level, ($\bar{X}$ = 3.86) (S.D. = 0.55). When each competency is examined individually, all are similarly rated at a high level. Specifically, the attitude competency exhibits an average score of $\bar{X}$ = 4.00 (S.D. = 0.63), and the knowledge competency presenting a mean score of $\bar{X}$ =3.73 (S.D. = 0.59), as illustrated in Figure 1.

Figure 1

Trainers' core competencies.



5.3 IMPORTANCE LEVELS OF SUB-COMPETENCIES

Mingucci (2018) identified 20 sub-factors that significantly contribute to the success of trainers in PMIF in Thailand. Based on the interviewees' perceptions, each sub-factor exhibited a mean score of a high level of importance. The 11 most significant sub-factors are presented in Table 3.

Table 3 presents the analytical results, examining the sub-competencies affecting the success of training operations in PMIF, based on three main competencies which comprises 11 sub-factors, including: 1) Teaching Psychology, 2) Behavior and Work Analysis, 3) Trainers' Attitudes, 4) Research on Modern Knowledge, 5) Emotional Quotient Development 6) Training and Counseling 7) Trainees' Intentions 8) Learner-Centered Pedagogy 9) Fostering Critical Thinking Skills 10) Listening Skills and 11) Computer Proficiency.

Table 3

Means, standard deviation, and importance levels of sub-competencies influencing training success.

Affecting Factors	$\overline{X}$	SD.	Level of importance
1. (f1) Teaching Psychology	3.96	0.71	High
2. (f2) Behavior and Work Analysis	3.89	0.71	High
3. (f18) Trainers' Attitudes	3.88	0.76	High
4. (f8) Research on Modern Knowledge	3.88	0.75	High
5. (f7) Emotional Quotient Development	3.85	0.76	High
6. (f6) Training and Counseling	3.85	0.67	High
7. (f15) Trainees' Intentions	3.81	0.77	High
8. (f14) Learner-Centered Pedagogy	3.79	0.77	High
9. (f5) Fostering Critical Thinking Skills	3.77	0.80	High
10. (13) Listening Skills	3.77	0.76	High
11. (f10) Computer Proficiency	3.72	0.77	High

5.4 RESULTS OF STEPWISE MULTIPLE LINEAR REGRESSION ANALYSIS IN THE KNOWLEDGE DOMAIN

The results obtained from the stepwise multiple linear regression analysis of the predictor variables, influencing training success in the knowledge domain, are summarized in Table 4.

Table 4

Results of stepwise multiple linear regression analysis of predictor variables affecting training success in the knowledge domain.

Steps	Predictor Variables	R	R^2	b	SE_{est}	β	t	Sig
1	Knowledge of Teaching Psychology	0.638	0.407	0.132	0.48504	0.150	2.548	0.011
2	Knowledge of Trainers' Attitudes	0.795	0.497	0.142	0.44731	0.189	3.539	0.000
3	Knowledge of Behavior and Work Analysis	0.731	0.535	0.154	0.43088	0.185	3.324	0.001
4	Knowledge of Training and Counseling	0.745	0.568	0.136	0.41651	0.152	2.888	0.004

$P < 0.05$, $a = 0.798$

According to Table 4, following discussions with a focus group of specialists, it is determined that four sub-competencies influence the success of training in PMIF, in the knowledge domain. These include knowledge of teaching psychology, trainers' attitudes, behavior and work analysis, and training and counseling. Together, these four aforementioned variables predict 56.80% of the success in knowledge training ($R^2 = 0.568$), with statistical significance at the 0.05 level, as shown in Figure 2.

The prediction equation in raw score form for the knowledge domain is:

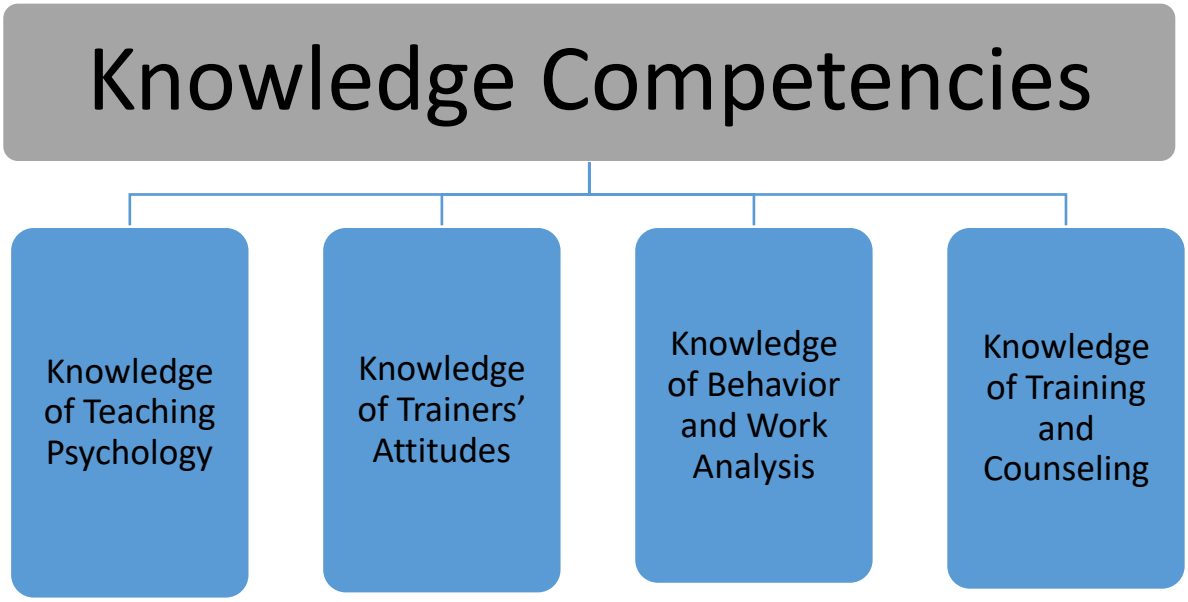
$Y' = 0.798 + 0.132$ (Knowledge of Teaching Psychology) + 0.142 (Knowledge of Trainers' Attitudes) + 0.154 (Knowledge of Behavior and Work Analysis) + 0.136 (Knowledge of Training and Counseling)

The prediction equation in the form of standardized scores, for the knowledge aspect is as follows:

$\hat{Z}_{y1} = 0.150$ (Knowledge of Teaching Psychology) + 0.189 (Knowledge of Trainers' Attitudes) + 0.185 (Knowledge of Behavior and Work Analysis) + 0.152 (Knowledge of Training and Counseling)

Figure 2

Knowledge competencies of trainers.



5.5 RESULTS OF STEPWISE MULTIPLE LINEAR REGRESSION ANALYSIS IN THE SKILLS TRAINING ASPECT

As observed from Table 5, following the discussion of results with a focus group of specialists, it is examined that the sub-competencies affecting training success in PMIF, in the skills domain, consists of four variables, including skills in teaching, listening, computer proficiency, and skills in behavior and work analysis. The four variables, collectively, predict 59.50% ($R^2 = 0.595$) of the success in skills training, at a statistical significance level of 0.05, as shown in Figure 3.

Table 5

Results of stepwise multiple linear regression analysis of the predictor variables affecting success in skills training.

Steps	Predictor Variables	R	R^2	b	SE_{est}	β	t	Sig
1	Teaching Skills	0.658	0.433	0.204	0.49589	0.235	4.551	0.000
2	Listening Skills	0.734	0.539	0.174	0.44754	0.222	4.400	0.000
3	Computer Proficiency	0.759	0.576	0.116	0.42999	0.145	2.615	0.009
4	Behavior and Work Analysis Skills	0.771	0.595	0.124	0.42114	0.144	3.151	0.002

$P < 0.05$, $a = 0.736$

The prediction equation in raw score form for the skills aspect is defined as:

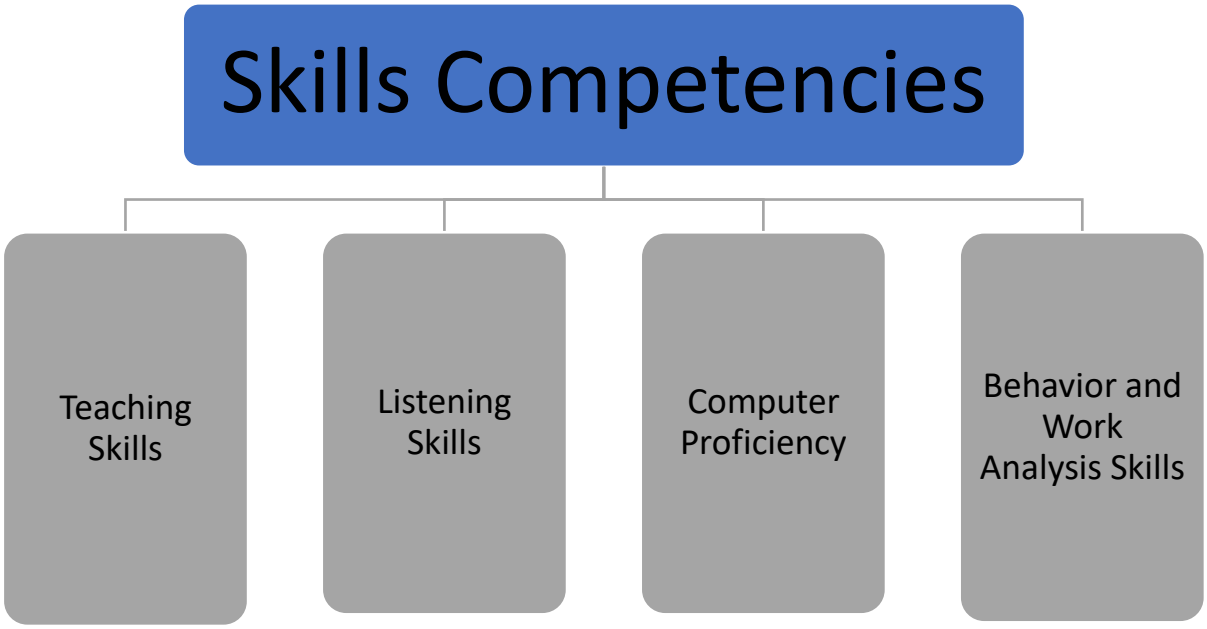
$Y' = 0.736 + 0.204$ (Teaching Skills) + 0.174 (Listening Skills) + 0.116 (Computer Proficiency) + 0.124 (Behavior and Work Analysis Skills)

The prediction equation in the standardized score form, in the skills aspect, is as follows:

$\hat{Z}_{y1} = 0.235$ (Teaching Skills) + 0.222 (Listening Skills) + 0.145 (Computer Proficiency) + 0.144 (Behavior and Work Analysis Skills)

Figure 3

Skills competencies of trainers.



5.6 RESULTS OF STEPWISE MULTIPLE LINEAR REGRESSION ANALYSIS IN THE ATTITUDE TRAINING DOMAIN

The results obtained from the stepwise multiple linear regression analysis of the predictor variables, influencing success in attitude training aspect, is provided in Table 6.

Table 6

Results of stepwise multiple linear regression analysis of the predictor variables affecting success in the attitude training domain.

Steps	Predictor Variables	R	R^2	b	SE_{est}	β	t	Sig
1	Attitudes Toward Modern Research	0.642	0.412	0.162	0.51656	0.199	3.754	0.000
2	Attitudes Toward Trainees' Intentions	0.711	0.505	0.164	0.47463	0.192	4.048	0.000
3	Attitudes Toward Teaching Psychology	0.745	0.556	0.170	0.45037	0.194	4.137	0.000
4	Trainers' Attitudes	0.759	0.576	0.149	0.44046	0.172	3.519	0.000

P<.05, a = 0.830

According to the results shown in Table 6, and discussion of results with a focus group of specialists, it is concluded that four sub-competencies influence the success of training in the attitude aspect within PMIF. These sub-competencies comprise attitudes toward modern

research, trainees' intentions, teaching psychology, and trainers' attitudes. Together, these four variables predict 57.60% (R^2 = 0.576) of the success in the attitude training aspect, with a statistical significance at the 0.05 level, as exhibited in Figure 4.

The prediction equation in raw score form for the attitude domain is defined as:

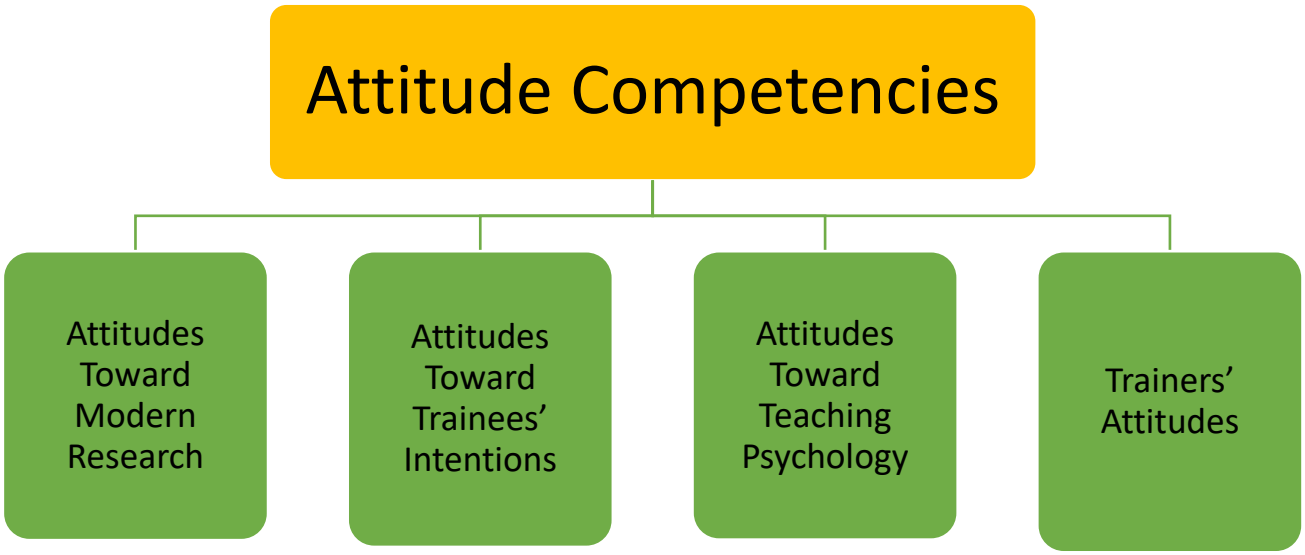
$Y' = 0.830 + 0.162$ (Attitudes Toward Modern Research) + 0.164 (Attitudes Toward Trainees' Intentions) + 0.170 (Attitudes Toward Teaching Psychology) + 0.149 (Trainers' Attitudes)

The prediction equation in the standardized score form for the attitude aspect is denoted as:

$\hat{Z}_{y1}$ = 0.199 (Attitudes Toward Modern Research) + 0.192 (Attitudes Toward Trainees' Intentions) + 0.194 (Attitudes Toward Teaching Psychology) + 0.172 (Trainers' Attitudes)

Figure 4

Attitude competencies of trainers.



6 DISCUSSION AND CONCLUSION

6.1 CONCLUSION FROM LITERATURE REVIEW

A comprehensive review of literature and the results obtained from the current study, on the development of trainer competencies in industrial factories, revealed that the most

frequently identified competencies fall into three main categories: attitudes, skills, and knowledge, comprising 11 sub-competencies that significantly affect the success of training. According to literature review and results obtained from the current study, it is examined that the development of trainers' competencies encompasses three main areas, exhibiting a total of 12 sub-competencies. In the attitude domain, four sub-competencies are identified, including: attitudes toward 1) Modern Research, 2) Trainees' Intentions, 3) Teaching Psychology, and 4) Trainers' Attitudes. Together, these four sub-competencies are found to predict 57.60% (R^2 = 0.576) of the success in attitude training, with statistical significance at the 0.05 level. Further, in the skills training aspect, four sub-competencies are determined, as follows: 1) Teaching Skills, 2) Listening Skills, 3) Computer Proficiency, and 4) Behavior and Work Analysis Skills. These four sub-competencies are shown to predict 59.50% (R^2 = 0.595) of the success in the skills training domain, with a statistical significance of 0.05. Lastly, in the knowledge domain, four sub-competencies are identified, including: knowledge of 1) Teaching Psychology, 2) Trainers' Attitudes, 3) Behavior and Work Analysis, and 4) Training and Counseling. The four competencies, together, predict 58.60% (R^2 = 0.586) of the success in knowledge training, with a statistical significance at the 0.05 level, as shown in Figure 5.

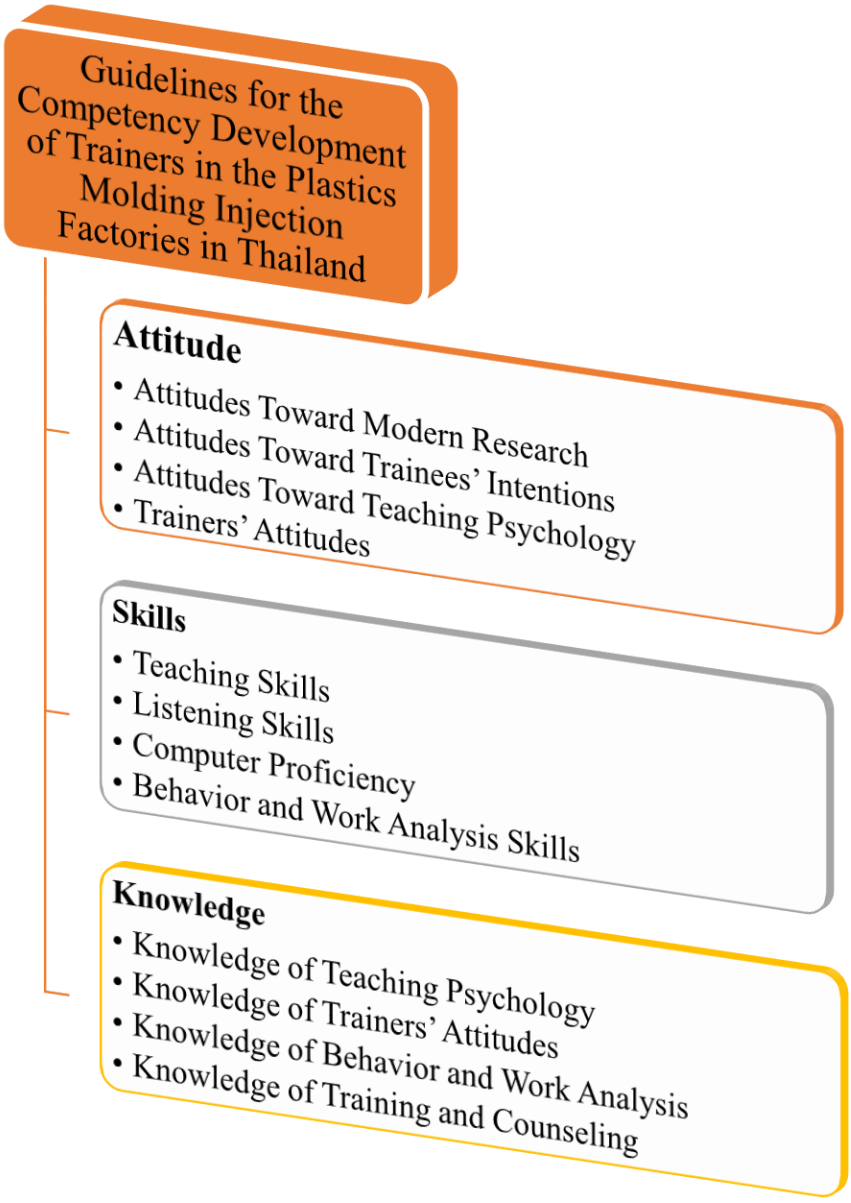
6.2 DISCUSSION OF RESULTS

Based on the qualitative and quantitative results, the factors contributing to the success in trainer development can be categorized into three aspects, aligning with the findings from Mingucci (2018), on "Action Research as English as a Second Language Teacher Professional Development." The study examined that participants experienced significant professional growth and learning through action practice, which enhanced their confidence in their roles as researchers. This further reinforces the notion that action practice contributes to success. The findings further aligned with McClelland's (1973) concept, demonstrated in the study entitled "Testing for Competence rather than Intelligence," which argues that competency, defined as a fundamental personal characteristic, is a critical factor for achieving success in the workplace. Additionally, Bird (2019) emphasized that individuals involved in curriculum design and training often lack essential skills and competencies, thus highlighting the needs for professional development as a key factor in improving new training programs. The results from this study are consistent with Theptarin's (2018) findings, entitled "Development of an Industrial Professional Experience Training Program," tailored for students in the industrial

technology division. Research results revealed that experience-based training should focus on industrial work, integration of theory and practice, personality development, human relations, morals, and ethics. Likewise, findings from the current study, on the competency development of training leaders in the plastics molding injection factories in Thailand, also align with existing literature, as shown in Figure 5.

Figure 5

Guidelines for the competency development of trainers in the plastic molding injection factories in Thailand.



The research concluded that training leaders in PMIF demonstrated competencies at a "High" level overall, particularly in attitude, skills, and knowledge (Korakot, 2018). These findings are consistent with the study on the "Impact of the Developmental Training Model on Staff Development in Air Force Child Development Programs" (Bird, 2019), which indicated that most caretakers exhibited positive perceptions of the personnel development program, despite minimal support from related organizations. Furthermore, the results aligned with Bloom's (1956) "Taxonomy of Education Objective," which categorizes educational goals into three main domains, including: cognitive, affective, and psychomotor. The factors contributing to success also influenced the development of trainers in the areas of knowledge, skills, and attitudes, consistent with Parry's (1997) theory on evaluating the impact of training.

7 SUGGESTIONS

In this study, the development of competencies focused on those most critical to the success of trainer development in PMIF. It is imperative that senior executives, tasked with implementing these competencies in industrial factory settings, thoroughly examine each competency in detail. Given the practical application, there may be a need for adaptation to align with the specific circumstances of the organization, particularly where established guidelines and best practices are in place. These frameworks can be utilized to address deficiencies within the current training processes. Executives should undertake a comprehensive organizational analysis, evaluating both internal strengths and weaknesses, as well as external opportunities and challenges, to accurately assess the organization's current state. The competencies identified in this research may not perfectly align with the organization's unique context, necessitating adjustments. Moreover, it is essential for leaders to cultivate a motivational environment, encouraging personnel to fully engage with and contribute to the success of the trainer development initiatives. Furthermore, executives must possess a deep understanding of trainer development methodologies to provide effective guidance, act as mentors, and ensure continuous monitoring and evaluation of the outcomes of the development process.

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