



Independent Essay (15 hp)

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Quality Assurance Processes within the field of PME

An Analysis from the Implementational Perspective

ABSTRACT:

Defensive cooperation between member states is considered an integral part on the EU agenda. Yet, despite the evident demand for integrative defensive mechanisms at the EU level, there appears to be no consensus on how military personnel should be trained. In order to bridge the national barriers, the field of Professional Military Education offers an internationalized space that lends itself to comparison. While the PME literature on officer education often touts *adaptability* and *quality assurance* as critical components – there are no descriptions on which processes facilitate these components. The purpose and aims of this study were to address the lack of information within the field of PME regarding which processes underpin and sustain quality assurance. Subsequently, the field of implementation research was investigated. Special attention was given to the Core Implementation Components model which was used to analyze the regulatory documents of two institutions, the Swedish Defence University (SEDU) and the Theresian Military Academy (TMA), which handle parts of PME within their respective national contexts. Using a qualitative methodological approach, the case study found that while some operationalized variables can be found, the regulatory documents exhibit different ratios of variables. SEDU documents exhibit less descriptive matches, while TMA yield more. Neither sets of regulatory documents display the variable *coaching*. The results of the modelling and analysis has 1) shown that the use of the Core Implementation Components Model performs well for analysis of quality assurance processes within the field of PME, and 2) are presented such that they can be used as support for future studies.

Keywords:

Quality Assurance, Professional Military Education, PME, Implementation, Fidelity, Core Implementation Components Model, Organizational Change, Quality Management.

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2. Prelude

2.1 Preface

Why is it that *adaptability* and the function of *positive change* seem to be held universally in positive regard, but the knitty gritty details of *how* to achieve said change isn't discussed as feverishly? The brass tacks of *how* a function works and can be efficiently implemented is equally important, if not more, than dressing up a function in niceties. This thesis is the result of an author's interest and inquiry into how lasting change can be manifested in an organizational context in order to enhance processes of improvement.

2.2 Introduction

2.2.1 Background

One of the greater levels of standardization anticipated by EU Member states is *interoperability* of armed forces.^{1,2} Thus, defensive cooperation between member states is considered an integral part on the EU agenda. Yet, despite the evident demand for integrative defensive mechanisms at the EU level, there appears to be no consensus on how military personnel should be trained or how this training should be carried out among member states. Since each member state is responsible for the education and training of their own forces, achieving a high degree of interoperability *requires* a transparent and critical approach to the development of military training, education, and systems.³ Furthermore, up until *very* recently, there were no intra-European instruments that explained the various stages of a military career or the standards to which member nations should expect officers with various levels of training to perform in their line of military activities.⁴

This study examines how Professional Military Education (PME) can be linked with the field of implementation research in order to maximize successful outcomes in relation to the education and training of military personnel.

2.2.2 Sweden and Austria

Despite facing very different spatial challenges regarding geography, Sweden and Austria have a lot in common. Overarching similarities can be found in each respective nations' population structure, international policy and basic officer education (BOE). Within the greater context, BOE can be understood as one part of PME. The primary purpose of PME is to develop military officers, throughout the whole span of their careers, for the rigorous intellectual demands of complex contingencies and major conflicts.⁵

¹ European Security and Defence College. (2021). Sectoral Qualifications Framework for the Military Officer Profession. P. 16.

² European Parliament. (2021). Common Security and Defence Policy. P. 4.

³ European Security and Defence College. (2021). Sectoral Qualifications Framework for the Military Officer Profession. P. 16.

⁴ Ibid. P. 6.

⁵ Jacobs, M. P. (2014) Professional Military Education: Analysis and Recommendations. P. 1

Both the Swedish and Austrian BOE are conducted over six semesters and yield a bachelor's degree. On the other hand, the Austrian Armed Forces (AAF) BOE underwent academization in 1998, while the Swedish Armed Forces (SAF) BOE completed its academization not earlier than 2007, nearly ten years later. Further, the academic degree in the Austrian BOE is awarded in *Leadership*, while the Swedish BOE yields a professional degree at the bachelor level in *Military Science*.

2.2.2.1 The UKÄ Evaluation Regarding the Quality Assurance of SEDU in 2019

The Swedish Higher Education Authority (UKÄ) conducted in 2019 an evaluation of the quality assurance work being done at the Swedish Defence University (SEDU) which was based on the requirements set forth in the *Swedish Higher Education Act*, the *Higher Education Ordinance*.⁶ Requirements in the *Standards and Guidelines for Quality Assurance in the European Higher Education Area* were also incorporated into the evaluation which links back to processes initiated by the Bologna process.^{7,8}

The 2019 evaluation state that overarchingly, *quality assurance* at SEDU was of insufficient quality.⁹

2.2.2.2 The ZEvA Evaluation Regarding the Quality Assurance of TMA in 2016

The *Zentrale Evaluations- und Akkreditierungsagentur Hannover* (ZEvA) conducted in 2016 an audit for the certification of the internal quality assurance system of the Theresian Military Academy (TMA) in accordance with parameters set forth in section 22 of the *Act on Quality Assurance in Higher Education*.¹⁰

⁶ Universitetskanslerämbetet. (2019). Bedömgruppens yttrande över kvalitetssäkringsarbetet vid Försvarshögskolan. P. 1.

⁷ Ibid. P. 1.

⁸ European Association for Quality Assurance in Higher Education. (2015). Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG). P. 5.

⁹ Universitetskanslerämbetet. (2019). Bedömgruppens yttrande över kvalitetssäkringsarbetet vid Försvarshögskolan. P. 27.

¹⁰ Federal Ministry of Science, Research and Economy. (2020). Federal Act on the External Quality Assurance in Higher Education and the Agency for Quality Assurance and Accreditation Austria. PP. 20-21.

The evaluation found that quality assurance at TMA was comprehensibly documented, communicated and effective, and thus was granted certification for a period of seven (7) years.¹¹

2.2.3 Key Terms

The following terminology is used throughout the thesis:

Quality Assurance is a term that encapsulates all activities of systematic assessment of organizational structures, teaching, learning processes and performance criteria that aims to improve quality in a continuous improvement cycle (i.e., *assurance* and *enhancement activities*).¹²

Intervention is defined by Fixsen et. al. as a specified set of activities designed to put into practice an activity of known dimensions.¹³

Implementation fidelity is a term defined by Carroll et. al. and refers to the degree to which an intervention or programme is delivered *as intended*. Through understanding and measuring whether an intervention has been implemented with fidelity, researchers and practitioners gain a better understanding of how and why an intervention works, and the extent to which outcomes can be improved.¹⁴

Evidence-based programmes is defined by Fixsen et. al. is a term that refers to a collection of practices that are done within known parameters and with accountability to the consumers and funders of those practices. Evidence-based programs represent a *proven* way to translate

¹¹ Zentrale Evaluations- und Akkreditierungsagentur Hannover. (2016). Report on the results of the audit pursuant to §22 HS-QSG at the Federal Ministry of Defence and Sports (BMVLS), Vienna. PP. 3-4. Author's remark: The report is not publicly available and had to be specifically requested from TMA. The report was provided in its original language, German, and was subsequently translated.

¹² European Association for Quality Assurance in Higher Education. (2015). Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG). P. 7.

¹³ Fixsen, D., Naoom, S., Blase, K., Friedman, R., Wallace, F. (2005). Implementation Research: A Synthesis of the Literature. PP. 5-6.

¹⁴ Carroll, C., Patterson, M., Wood, S., Booth, A., Rick, J., & Balain, S. (2007). A Conceptual Framework for Implementation Fidelity. P. 1.

the conceptual, goal-oriented needs of program funders and agency directors into the specific methods necessary for *effective* treatment, management, and quality control.¹⁵

¹⁵ Fixsen et al., (2005). Implementation Research: A Synthesis of the Literature. P. 26.

3. Body of Thesis

3.1 Current State of Research

The purpose of this section is to foster an understanding of the current state of the research field for Professional Military Education. This thesis will henceforth use the English abbreviation PME. Given the complexity and dignity of the subject, the author had to use previous courses to familiarize himself with the subject.

Initially, various theories regarding PME are presented, including conclusions and proposals for the identified needs for future research. Conclusions and proposals are discussed both in relation to the individual research papers and the larger research field. Finally, an overarching knowledge gap is crystallized relative to the current state of research in PME. This research gap then forms the basis for the research problem and supplementary research questions.

Timur Libel claims that PME may be thought of and understood as an institution rather than a collection of entities. By framing PME as an institution, it is possible to borrow specific theoretical frameworks that lend themselves to the investigation of PME's origins, which, according to Libel, allows for the discovery of historical tendencies and their meaning.¹⁶ According to Libel, this answers the first difficulty he noticed in the PME research field: a lack of theoretical considerations of PME as a concept and its qualities, as well as how they relate to the concept of *military professionalism*.¹⁷

The second gap highlighted by Libel is that PME literature often comprises of research reporting individual organizational outcomes in the field of PME, meaning that few comparative studies exist at the regional, national, and global levels, limiting the potential for systematic analysis.¹⁸ In addition, Libel provides a theoretical framework for analyzing PME that is based on historical institutionalism.¹⁹ The theoretical framework is then used to identify different historical phases and trace the overarching development of PME in the Western world

¹⁶ Libel, T. (2021). Professional Military Education as an Institution: A Short (Historical) Institutional Survey. PP. 122-123.

¹⁷ Ibid. P. 121.

¹⁸ Ibid. PP. 121, 129.

¹⁹ Ibid. PP. 122–123.

from the 17th century to the 21st century.²⁰ To overcome the gaps noted by Libel, he proposes that PME be conceptualized in order to improve understanding and allow future study in the subject. This, according to Libel, may be accomplished in part by anchoring PME to institutionalism, which allows for the reuse of previously developed theoretical frameworks. Libel argues that this would reduce the necessity of creating new instruments for comparative analysis.²¹

The study by Libel is successful in identifying research gaps and inefficiencies in the field of PME, but it is limited to addressing theoretical concerns that might support and allow future PME research. More research may thus be done to test the theoretical framework offered by historical institutionalism on a larger number of cases in order to make more general conclusions. A greater variety of comparative research on the suggested regional, national, and global levels can be used to address the lack of systematic understanding.

Finally, despite its evident virtues in explaining change in terms of *how* and *what*, the theoretical framework selected by Libel as the foundation for his research could be argued to be insufficient in explaining *why* change happens. Further studies that incorporate theoretic models explaining *why* said change occurred can thus be used to supplement Libel's study.

Anit Mukherjee looks at how civil-military relations might impact and form PME.²² The study is based on an Indian context, but Mukherjee argues that the conclusions aren't necessarily limited to India because the Indian national context is comparable to other countries that are establishing defence universities in varying degrees and anticipates a growing trend of exchanges between military and civilian educational institutions.²³

Mukherjee argues that effective PME necessitates well-informed and well-intentioned civilian intervention aimed at increasing coherence between the military, civilian, and political spheres,²⁴ and that higher military education necessitates key competencies commonly found

²⁰ Libel, T. (2021). Professional Military Education as an Institution: A short (Historical) Institutional Survey. PP. 123–124.

²¹ Ibid. P. 129.

²² Mukherjee, A. (2017). Educating the Professional Military: Civil-Military Relations and Professional Military Education in India. P. 476.

²³ Ibid. P. 477.

²⁴ Ibid. P. 492.

in the civilian sector.²⁵ Mukherjee argues that the study's fundamental premise supports increased military effectiveness, through the mechanism of improved civil-military relations.²⁶

The link between *military efficiency* and PME would also have to be explained as a supplement to Mukherjee's work, therefore investigations on *military efficiency* and its relation to training offered by different officer corps would have been beneficial. This poses additional questions regarding PME and how quality assurance should be implemented since Mukherjee argues that PME evolves through a mechanism of well-intentioned civil-military partnerships.

Claire Goode's study seeks to examine which concepts are stressed as "best practice" in the current PME literature and thus may be identified as support in the development and revision of military training programs using a research overview.²⁷ The article offers key principles in the context of three implementation stages (planning, delivery, and post-delivery), which Goode suggests should define PME.²⁸

Goode shows the relevance of civil-military collaboration in education by presenting PME from a forward-looking perspective that incorporates both Libel and Mukherjee's reasoning for current development patterns as well as the importance of civil-military interaction. She contends that good and comprehensive training for military decision-makers is crucial for developing critical thinking and creativity.^{29,30} Critical thinking will be critical at all levels of the PME, according to Goode, since it produces better leaders, who in turn produce more and more successful military scholars.³¹

Lastly, the significance of ongoing evaluation, administration, and adaptation in the context of education is highlighted, but only the friction between them is discussed.³² If the study had included information on how these concepts should be put into practice, it could have made for a more convincing argument. Future studies could therefore attempt to explain how to close the knowledge gap that appears frequently in the literature on PME and is highlighted

²⁵ Mukherjee, A. (2017). Educating the Professional Military: Civil-Military Relations and Professional Military Education in India. PP. 477–478.

²⁶ Ibid. P. 481.

²⁷ Goode, C. (2019). Best Practice Principles for Professional Military Education: A Literature Review. p. 5.

²⁸ Ibid. P 14.

²⁹ Ibid. P. 8.

³⁰ Ibid. P. 9.

³¹ Ibid. P. 10.

³² Ibid. P. 12.

by Goode's article: How do you ensure that the change you agree on is implemented correctly and, equally important, produces the desired outcome?

David Cox and Andrew O'Neil's article highlights contemporary issues confronting PME from a historical perspective. Cox and O'Neil's key argument is that PME is a critical requirement for defence capability³³, and without a well-developed understanding and foundation for PME, governments may find themselves in situations where they might not be able to guarantee favorable outcomes.³⁴ The core premise that officer training leads to enhanced military efficiency via the mechanism of improved leadership qualities may be seen as a "lessons learned" process, according to the study.³⁵ Their ideas are represented in Libel's study, which traces and explains the evolution of PME in a Western context.³⁶

Cox and O'Neil suggest that critical thinking and advanced problem-solving skills are vital to PME, echoing Goode's rationale regarding the significance of effective and comprehensive training for military decision-makers.^{37,38} The exchange between Cox and O'Neil is evocative of Goode's forward-looking explanation regarding challenges PME is faced with, and how they could be solved. However, Cox and O'Neil's study makes no recommendations on how the suggested adjustments should be implemented. As a result, more research is needed to fill the knowledge gap on how the proposals proposed can and should be implemented within the PME framework in order to assure the desired outcomes.

³³ Cox, D., & O'Neil, A. (2007). Professional Military Education in Australia: Has it all Gone Terribly Right? P. 68.

³⁴ Ibid. P. 68.

³⁵ Ibid. P. 58.

³⁶ Libel, T. (2021). Professional Military Education as an Institution: A short (Historical) Institutional Survey. PP. 123-124.

³⁷ Ibid. PP. 62-63.

³⁸ Goode, C. (2019). Best Practice Principles for Professional Military Education: A Literature Review. PP. 8-9.

3.2 Research Gap

The research overview addresses a range of identified knowledge gaps by making recommendations for further research on the studies covered in the overview. Particularly noteworthy is the need for more comparative studies at the regional, national, and global levels, coupled with finding an approach to how well-functioning implementation of change at the organizational level should take place.

Every article and study emphasize the importance of adaptability and quality assurance without suggesting how this can be addressed.

3.3 Research Questions

The following main question has been prepared in response to the research problem:

- How might implementation research facilitate and enhance processes of quality assurance within the field of PME?

The following sub-questions have been constructed to answer the main question:

- Can the seven (7) variables defined in the Core Implementation Components model be found in the regulatory documents prescribing quality assurance work at SEDU and TMA?
- To which extent can the variables be found?

3.4 Methodology

3.4.1 Methodological Approach

The study is two-pronged. First, to provide an understanding of the scope of the research question, the study compiles a curated list of best-practice principles from implementation research that underpin how *change* can be brought about in a methodical and scientific manner.

Secondly follows a comparative case study in which regulatory documents detailing the quality assurance work at both The Swedish National Defence College (SEDU) in Sweden and the Theresian Military Academy (TMA) are examined.³⁹ The analysis focuses on if, and if then to what degree the regulatory documents reflect the certain mechanisms that underpin and sustain implementation. By analyzing the empirical material an assessment can be made as to which degree the competency and organizational indicators defined in implementation research can be found in the empirical material. If an indicator is found, and the match is clear and comprehensive regarding all the corresponding operationalized variables, this will yield the result *found*. If there is a partial and/or ambiguous match the result will be marked as *partially found*. If an operationalized variable is unmatched, it will be marked as *not found*.

3.4.2 Methodological and Research Ethical Considerations

Furthermore, the study employs a qualitative descriptive design and utilizes text analysis as a way of answering the research question by carefully examining the text's parts, wholeness, and context as part of investigating its core content.⁴⁰ A qualitative approach allows the researcher a lot of leeway in the study's design, but it also requires a higher degree of transparency and precision since the research design may not always be predetermined, and thus recognized.⁴¹

A theory-consuming approach implies that, when confronted with a specific problem, the researcher is primarily interested in mixing multiple ideas or that one employs several types of

³⁹ Esaiasson, P., Gilljam, M., Oscarsson, H., Towns, A. & Wängnerud. (2017). Metodpraktikan. P. 102.

⁴⁰ Ibid. P. 211.

⁴¹ Johannessen, A., Tufte, P. A., & Christoffersen, L. (2019). Introduktion till Samhällsvetenskaplig Metod. P. 69.

theories to address said question.^{42,43} The research problem and subsequent questions that may emerge are thus at the foreground with designs that utilize this type of theoretical linkage. Thus, in relation to the personal ethics of a researcher the methodological approach of this study necessitates an extra call to reliability.

Ultimately, since theoretical and conceptual contributions from others aid in the reduction of complexity and advancement of the research at hand, this highlight and echoes the call to transparency and precision previously discussed. The qualitative method is inherently subjective to some degree, so in the spirit of full disclosure the author acknowledges the unique position he's in; being a student at one of the units of analysis, while writing his thesis as a guest at the other. All available precautions for objectivity have been taken and the author declares no conflicts of interest.

3.4.3 Route of Research

In order to answer the main research question, this study initially describes how interventions in an organizational context should be implemented if implementation fidelity is desirable. This is done through the perspective of implementation research. The study discuss why change is necessary, problems with the implementation of change, and how these problems can be effectively dealt with through a theoretical model borne in the field of implementation research. The study then describes the theoretical model and defines a corresponding analytical tool. This provides the scope which components that implementation research highlights as underpinning and facilitative regarding organizational change-processes.

Then follows a comparative case study in which regulatory documents detailing the quality assurance processes at SEDU and TMA are presented. Using the analytical tool, the empirical material is then analyzed which provides answers to the two sub-questions.

During the last step of the study the results are then discussed in relation to the specific components and provides proposals. Lastly, the study concludes the results, discusses benefits for scientific disciplines, and exemplifies avenues for further research.

⁴² Esaiasson et al., (2017). Metodpraktikan. PP. 42–43.

⁴³ Mittuniversitetet. (2018). Manual för självständigt arbete i statsvetenskap. P. 5.

3.4.4 Criticism

The qualitative method approach allows for more flexibility regarding the research design but comes at the cost of increased transparency. It also stands to reason that the qualitative approach, in part due to its modularity, allows the researcher greater room to contribute with unique competences in the search for a whole that is greater than the sum of its parts.⁴⁴

The interpretative aspect of qualitative methods, on the other hand, might be a limitation because two researchers do not have to reach the same result while being supplied with the same data.⁴⁵ The interpretative aspects thus endanger *intersubjective verifiability*, which could affect the reliability of the study.⁴⁶ The study's limited number of cases lends itself to more in-depth analysis. However, the results generalizability is limited compared to research that utilize larger sets of cases for comparison.⁴⁷

3.4.5 Delimitations

Due to the limited scope and its exploratory nature, the study does not seek to catalogue and classify all the contents within each the quality assurance documents. If an indicator is found and comprehensively matched to a corresponding operationalized variable, the criteria for that variable will be considered fulfilled and any additional matching for said variable will be disregarded.

Furthermore, owing yet to the limited scope of the study; references to any external models that are only mentioned, and not described, will be disregarded. Since the study seeks to analyze the empirical material for direct and clear references to the competency and organizational indicators defined in implementation research, incorporating models only mentioned as abbreviations lends itself to inconclusive analysis due to the ambiguity of how these models then are applied within the quality assurance work.

⁴⁴ Esaiasson et al., (2017). Metodpraktikan. P. 211.

⁴⁵ Ibid. PP. 226–228.

⁴⁶ Ibid. P. 102.

⁴⁷ Ibid. P. 89.

Finally, the empirical material used in the study is delimited to what is publicly available through either the institutional homepage of the respective institution or found as open-source material.

3.5 Research

In this chapter the empirical data used in the study are presented and subsequently analyzed. Initially, the field and scope of implementation research is defined. Secondly, the Core Implementation Component Model is outlined. Thirdly, an analysis tool built upon the Core Implementation Component Model is presented. Lastly, the two cases SEDU and TMA, and the respective regulatory documents detailing their quality assurance policies are presented and analyzed.

3.5.1 Implementation Research

Good value in service delivery is arguably more important than ever. Every service must optimize results while being cost-effective.⁴⁸ A plethora of initiatives and programmes have been designed to enhance society to date.^{49,50} Yet, even the most well-funded programs frequently yield poor results owing to inadequate implementation.⁵¹ Implementation science is the study of the components required to encourage authentic adoption of evidence-based interventions, hence boosting their efficacy.⁵² As argued by Moir; *“implementation science is the study of how evidence-based programmes can be embedded to maximize successful outcomes”*.⁵³

It is focused with identifying the range of elements that are likely to facilitate the delivery of an intervention using a methodical and scientific methodology.⁵⁴ Implementation science thus gives provides deeper understanding of how recognized strategies can be effectively translated into new settings by evaluating the success and failure of intervention adoption across disciplines. As a result, implementation science helps bridge the gap between theory

⁴⁸ Kotter, J. (1996). *Leading Change*. P. 3.

⁴⁹ Slavin, R. (2002). *Evidence-Based Education Policies: Transforming Educational Practice and Research*. P. 16.

⁵⁰ Fixsen, D. & Blase, K. (2009). *Implementation: The missing Link Between Research and Practice*. PP. 1-2.

⁵¹ Slavin, R. (2002). *Evidence-Based Education Policies: Transforming Educational Practice and Research*. P. xv.

⁵² Kelly, A. & Perkins, D. F. (2012). *Handbook of Implementation Science for Psychology in Education*. P. 3

⁵³ Moir, T. (2018). *Why is Implementation Science Important for Intervention Design and Evaluation Within Educational Systems?* P. 1.

⁵⁴ *Ibid.* P. 1.

and practice.⁵⁵ Although implementation science stem from the health sector, it is still relatively new in an educational context which in turn warrants further research.

3.5.2 Implementation Fidelity

The purpose of implementation is for practitioners to successfully deploy improved practices and programmes. In order to achieve this, core implementation components are used to develop, enable and support high-fidelity behavior for practitioners.⁵⁶ High-fidelity implementation of evidence-based programs is vital since it produces better (intended) outcomes for users.^{57,58,59} Additionally, while good interventions might be poorly implemented, poor interventions can sometimes be successfully implemented. In other words, the structural soundness of a programme does not in itself guarantee that it will be successfully implemented.

3.5.3 Core Implementation Components Model

A compilation of multiple sources of implementation research led to the creation of the Core Implementation Components Framework.⁶⁰ It proposes a conceptual model that addresses the essential requirements for successful implementation and identifies the *core implementation components*, which are the key processes that support implementation. The implementation components are presented below in Figure 1 and are the following: *staff selection, preservice and in-service training, ongoing coaching and consultation, staff evaluation, decision support data systems, facilitative administrative support and systems interventions*.⁶¹ The core components can compensate for each other by overcoming weakness in one component by strength in another, *ergo* the components are *compensatory*.⁶²

⁵⁵ Fixsen, D., Naoom, S., Blase, K., & Wallace, F. (2007). Implementation: The Missing Link Between Research and Practice. PP. 9-10.

⁵⁶ Fixsen, D., Blase, K., Naoom, S., & Wallace, F. (2009). Core Implementation Components. P. 533

⁵⁷ Ibid. P. 535.

⁵⁸ Fixsen et al., (2005). Implementation Research: A Synthesis of the Literature. P 17.

⁵⁹ Fixsen, Blase, K., Metz, A., & Van Dyke, M. (2013). Statewide Implementation of Evidence-Based Programs. P. 225.

⁶⁰ Fixsen et al., (2007). Implementation: The Missing Link Between Research and Practice. PP. 7-8.

⁶¹ Fixsen et al., (2009). Core Implementation Components. P. 533.

⁶² Fixsen, D., & Blase, K. (2009). Implementation: The Missing Link Between Research and Practice. P. 2.

According to Fixsen et al., the core implementation components exist *regardless* of the quality of the programme being implemented. Thus, they facilitate the implementation of programmes irrespective of their efficacy. As previously discussed, bad programmes can be implemented effectively, whereas effective ones can be implemented poorly. Neither alternative is appealing. Only when effectual programmes are properly implemented can favorable outcomes be obtained.⁶³

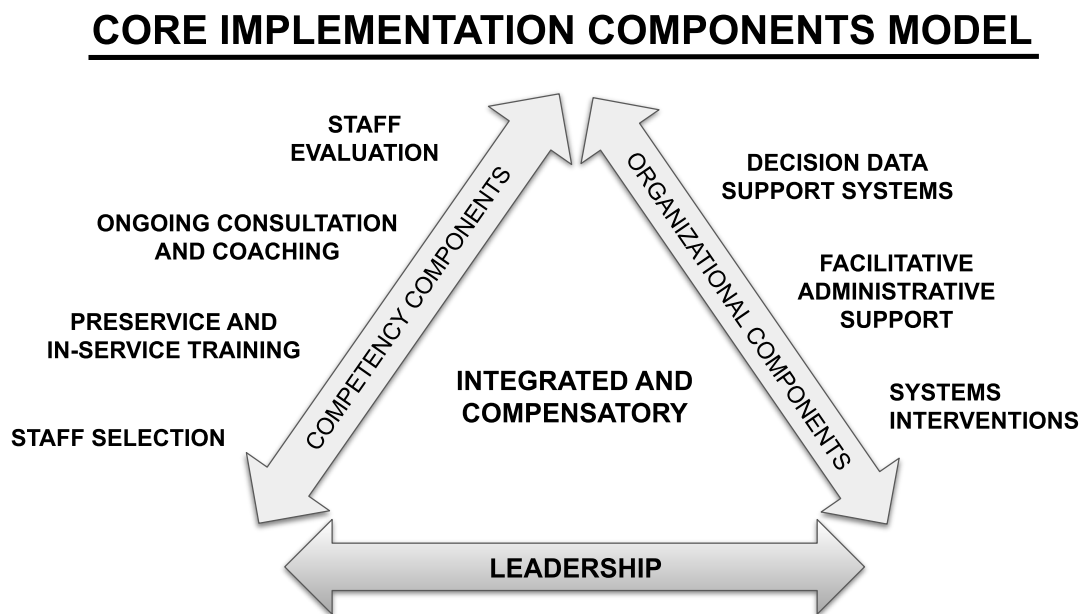


Figure 1: Core components that work together to implement and sustain the effective use of evidence-based programmes.⁶⁴

Leadership is fundamental to implementation efforts since it has an ameliorating effect on the different challenges that typically emerge as part of the change management process. Therefore, (effective) leadership can be argued to be crucial in processes where *change* implemented, hence it is depicted as the base in the Core Implementation Components Model.⁶⁵

⁶³ Fixsen et al., (2005). Implementation Research: A Synthesis of the Literature. P 12.

⁶⁴ National Implementation Research Network. (2013). Handout 12: Implementation Drivers. Author's remark: the graphic representation of the model is the author's own work but draws heavily from the original concept model.

⁶⁵ National Implementation Research Network. (2013). Handout 12: Implementation Drivers.

3.5.3.1 Staff Selection

As argued by Kotter, only teams with the right composition and sufficient trust can be highly effective in modern environments where the demands for effective mechanism of change are foundational due to the rapid changing informational landscape they exist within.⁶⁶ Furthermore, it is essential that this is underpinned by effective leadership; there needs to be enough leading key players that can guide change processes, which should optimally be accounted for during staff selection.^{67,68}

Fixsen et al. argue that ideally there should be a key stakeholder that can drive the process of implementation; whether it is in the form of a singular individual with decision-making authority, or a dedicated implementation team, since research has shown that success rates rose to 80% over a three-year period. Comparably, programmes without teams dedicated to overseeing the implementation produced success in 14% of the cases over a 17-year period.⁶⁹ The discrepancy between the efficacy of implementation with and without dedicated implementation teams should be taken with a grain of salt due to the research being limited to two studies for comparison.⁷⁰ Lastly, since continuous improvement requires a drive and aptitude to learn and grow, and these traits (among others) can be challenging to develop through mere training and coaching, and thus should be screened for.⁷¹

The competency component *staff selection* is operationalized as:

- There are descriptions of at least one key stakeholder with decision-making authority to drive implementation processes.
- There are descriptions of screening processes for certain traits and personalities that are likely to be favorable for an intended role in relation to staff selection practices.

⁶⁶ Kotter, J. (1996). *Leading Change*. PP. 55–57.

⁶⁷ *Ibid.* P. 57.

⁶⁸ Moir, T. (2018). Why is Implementation Science Important for Intervention Design and Evaluation Within Educational Systems? P. 4.

⁶⁹ *Ibid.* P. 4.

⁷⁰ *Ibid.* P. 4.

⁷¹ Fixsen et al., (2009). *Core Implementation Components*. P. 533.

3.5.3.2 Pre-Service/INSET Training

Training builds competency through its developmental effects; it creates chances to develop and test skills and methods while also allowing for feedback in an environment suited for learning and development.

Practitioners must understand when, how, and with whom to employ new methods and abilities in order to optimize efficiency. Pre-service and in-service (INSET) training are useful methods to impart knowledge even though they are inefficient implementation methods when used on their own.⁷² Lastly, since training builds on the predictions of what is *yet* needed, it is advisable to conduct pre-training questionnaires in order to more effectively gauge what which requirements training should strive to fulfill.⁷³

The competency component *Pre-Service/INSET Training* is operationalized as:

- There are descriptions of pre-service training for staff.
- There are descriptions of in-service training for staff.

3.5.3.3 Consultation and Coaching

Coaching is an essential component in that it ensures competence and facilitates growth of confidence through an integrated mechanism of professional support for the coachee. The act of coaching thus supports practitioners in the effective implementation and evaluation of a practice, programme or intervention, but also has the potential to promote continuous development.⁷⁴⁷⁵

Joyce and Showers presented in 2002 a meta-analysis showing that even with advanced training and feedback, just 5% of instructors applied their training and used the newly-learned skills in classrooms. However, when training was accompanied with coaching the figure rose to

⁷² Fixsen et al., (2009). Core Implementation Components. P. 534.

⁷³ Moir, T. (2018). Why is Implementation Science Important for Intervention Design and Evaluation Within Educational Systems? P. 4.

⁷⁴ Fixsen et al., (2009). Core Implementation Components. P. 534.

⁷⁵ Moir, T. (2018). Why is Implementation Science Important for Intervention Design and Evaluation Within Educational Systems? P. 4.

95%.⁷⁶ Thus, coaching can be argued to increase the efficiency of training to a very high degree and should optimally be embedded in training situations to facilitate learning.

The competency component *Consultation and Coaching* is operationalized as:

- There are descriptions of ongoing coaching.

3.5.3.4 Staff Performance Evaluation

Staff evaluations are used to examine the application and results of skills that are specified and recruited for during the selection process, developed in training and enhanced via consultation and coaching processes.⁷⁷ Important feedback on the success of implementation initiatives and the effectiveness of training and coaching can be gained by assessing staff and practitioner performance and measuring implementation fidelity. Since implementation fidelity is a key feature of successful interventions, insights gained from feedback during evaluations should only be used sparingly in adjustment of core components of evidence-based programmes.⁷⁸

The competency component *Staff Performance Evaluation* is operationalized as:

- There are descriptions of feedback mechanisms that assess staff performance.
- There are descriptions of mechanisms that assess implementation fidelity.

3.5.3.5 Decision Support Data Systems

Kotter argues that producing major change takes time – a lot of time. While the practitioner that is zealous in his or her belief may stay the course indefinitely, others might need more convincing that the effort invested in producing meaningful change is paying off. Further-

⁷⁶ Moir, T. (2018). Why is Implementation Science Important for Intervention Design and Evaluation Within Educational Systems? P. 4.

⁷⁷ Fixsen et al., (2009). Core Implementation Components. P. 534.

⁷⁸ Ibid. P. 535.

more, non-believers in an intervention are likely to be swayed only when they see tangible proof of success.⁷⁹

In order to facilitate change, a wider awareness of the short-term wins is imperative. This will add momentum that converts neutral or even reluctant practitioners into supporters.⁸⁰ The information enabling short-term wins is gathered, assessed and presented through data systems that provides timely and reliable data necessary for decision-making in various contexts and at actionable units.⁸¹ Process data, outcome data and fidelity data are all collected by decision support data systems.

Adoption, usage, and sustainability of a decision support data systems are all dependent on celebrating success through statistics. When information clearly reveals progress and supports the efforts of practitioners at all levels, a decision support data system is more readily accepted.⁸²

The organizational component *Decision Support Data Systems* is operationalized as:

- There are descriptions of systems that provide relevant data of key aspects of overall performance
- There are descriptions of systems that provide relevant data for decision-making at both policy and practice levels.
- There are descriptions of an information cycle that is *timely* (e.g., yearly).

3.5.3.6 Facilitative Administrative Support

It is the responsibility of administrators and others in a leading position to ensure that practitioners have the skills and resources they require to operate at their best.

The key function of the facilitative administrative support component is to develop and sustain beneficial and effective working conditions that lends themselves to a high degree of im-

⁷⁹ Kotter, J. (1996). *Leading Change*. P. 119.

⁸⁰ *Ibid.* P. 123.

⁸¹ Fixsen et al., (2009). *Core Implementation Components*. P. 535.

⁸² *Ibid.* P. 535.

plementation fidelity.⁸³ Policies, processes, structures, culture, and atmosphere, among other things, are given thorough consideration in order to improve coordination between the organizational resources and limitations, and the requirements that practitioners have.⁸⁴

The facilitative administrative support component enables internal mechanisms that make everyday work *more* productive and *less* difficult through gathering feedback and analyzing the needs of practitioners.⁸⁵

The organizational component *Facilitative Administrative Support* is operationalized as:

- There are descriptions of mechanisms and how they function that optimize the working conditions for staff.

3.5.3.7 Systems Interventions

The Systems interventions component are the strategies for coordinating with external systems to secure the financial, organizational, and human resources needed to support practitioners' work.⁸⁶

The Systems interventions component handles external variables such as policies, settings, systems, or structures that affect an organization during implementation.⁸⁷ Working groups and teams can work to identify challenges that exceed their own amount of influence and are impossible to deal with within an actionable unit. This identification enables teams and practitioners to bring these challenges to the attention of those who can address them.

The systems intervention component is thus mechanisms that handle the identification and removal of such obstacles, as well mechanisms that work to identify, improve and maintain external policies, processes, and regulations that make work easier.

The organizational component *Systems Interventions* is operationalized as:

⁸³ Fixsen et al., (2009). Core Implementation Components. P. 535.

⁸⁴ Ibid. P. 535.

⁸⁵ Ibid. P. 535.

⁸⁶ Fixsen et al., (2009). Core Implementation Components. P. 535.

⁸⁷ Moir, T. (2018). Why is Implementation Science Important for Intervention Design and Evaluation Within Educational Systems? P. 5.

- There are descriptions of mechanisms that handle external barriers that cannot be dealt with from within the organization.
- There are descriptions of functions that communicate outwards in a problem-solving manner.

3.5.4 Theoretical Considerations and Criticism

While implementation research provides insight into how evidence-based programmes can be implemented with a high degree of fidelity, a key component of implementation is that the programmes are *evidence-based*, meaning that their efficacy has been proven. Within the context of PME and education, accurately measuring efficacy of an educational programme likely differs from contexts where samples can be effectively measured and evaluated. Education is less prone to the same clear-cut results, and educational results can be hard to accurately gauge since the scope of education is predominantly forwards-looking. How does one predict the needs of the future?

Secondly, since implementation research state that implementation fidelity is of utmost importance, this could hinder practitioners from reconsidering if programmes not yielding the desired output should be kept online for the sake of fidelity or not. A zealous adherence to fidelity for fidelity's sake can thus create a false sense of security. Subsequently, this could question the suitability of the chosen theoretical framework.

Lastly, the core components model describes the components as *compensatory*, but gives no further insight into how they compensate for each other. The compensatory relationship needs further research in order to further strengthen the explanatory value of the theory. Thus, since the theoretical model utilized in the study is often ambiguous in describing how the components relate to each other, the combined results are beholden to the same ambiguity. Therefore, the study makes a conceited effort to try and separate each component during analysis and subsequent discussions.

3.5.5 Core Components Model Analysis Tool

| | SEDU Quality Assurance Protocols | | | TMA Quality Assurance Protocols | | |
|-------------------------------------|----------------------------------|-----------|-----------|---------------------------------|-----------|-----------|
| | FOUND | PARTIALLY | NOT FOUND | FOUND | PARTIALLY | NOT FOUND |
| Staff Selection | | | | | | |
| Pre-Service/INSET Training | | | | | | |
| Consultation and Coaching | | | | | | |
| Staff Performance Evaluation | | | | | | |
| Decision Support Data Systems | | | | | | |
| Facilitative Administrative Support | | | | | | |
| Systems Interventions | | | | | | |

Figure 2. Core Components Model Analysis Tool.⁸⁸

3.5.6 SEDU Quality Assurance Policy

This chapter presents the quality assurance policy documents that detail the working routines regarding the quality assurance work of SEDU. In the case of SEDU, the quality assurance system is described in general terms which means that a consistent strategy of quality assurance and how it is implemented is difficult to assess. Different actionable units within the institution have the autonomy to decide how they will implement the interventions recommended by the Research and Education board, and thus, the processes these units undergo once a deviation has been found is left to guesswork. A general description of the quality assurance model used by SEDU is outlined in the documents. In order to compensate for a lack of the precise detailing of how quality assurance work at SEDU is conducted, the study will make

⁸⁸ Author's remark: The model is the author's own work.

use a wider range of policy documents that are either publicized by SEDU or are external documents which are mentioned in the originally published documents from SEDU that relate to their quality assurance process. The documents used in the analysis of SEDU are the following:

1. The Swedish Defence University's Rules and Model for the Evaluation of Undergraduate, Postgraduate and Doctoral Education
2. The Swedish Defence University's Rules and Model for Educational Evaluation with External Assessment
3. Quality Policy for the Swedish Defence University's Education, Research and Cooperation
4. Guidance for the Review of Quality Assurance Systems in Higher Education Institutions for Research Revised May 2021

The policy documents make mention of another document that could have been of interest for the study, Ö137/2018, but SEDU has not made it publicly available. Therefore, Ö137/2018 is excluded due to the selection process of the empirical material discussed in the delimitation chapter.

It should be noted that in relation to SEDU stating they adhere to *regulations*, some of these regulations come in the form of assessment areas that form the basis for the overall judgement of the quality assurance work of the HEIs conducted by the assessing party; UKÄ. Since the quality assurance work assessments are based on specific criteria, these criteria can be argued to provide a type of minimum level of quality assurance needed by a HEI to pass assessment. Consequently, there's a strong argument to be made that the do's and don'ts of quality assurance is modeled around what the assessing party is examining. This is further emphasized in *The Swedish Defence University's rules and model for educational evaluation with external assessment* that states that the principle of proportionality is the guiding principle and that efforts need to be in proportion to goals. Arguably, this could mean that if the goals set forth by UKÄ, amongst others, is both alpha and omega - these likely frames quality assurance in a "least-accepted, but most-expected" structure. In turn, this type of structure would homogenize the scope of SEDU quality assurance to the expectations of UKÄ. This can lead to achievements up to expectation, while lacking many mechanisms for delivery beyond.

3.5.6.1 The Swedish Defence University's Rules and Model for the Evaluation of Undergraduate, Postgraduate and Doctoral Education

The document describes the internal mechanisms of quality assurance at SEDU. The document specifies that the overarching responsibility of quality assurance at SEDU lies with the *research and education board*, and that it monitors programmes in order to contribute to quality assurance and quality development. The document describes the roles involved in the process and their respective responsibilities.⁸⁹ It details the purpose of the evaluation, the division of responsibilities, the evaluation cycle with a corresponding timetable that outlines five different phases; *preparation, self-evaluation, assessment, action plan* and *follow up*. The division of responsibilities states that the responsibility of implementation lies with the head of each organizational unit.⁹⁰

3.5.6.2 The Quality Assurance Evaluation Model of SEDU

The quality assurance evaluation model of SEDU can be understood as a continuous cycle in which the results, analysis and corresponding action plan of the previous cycle acts as the basis for the next cycle.⁹¹ As a new cycle begins, the first year is characterized initially by preparatory work in which self-assessment templates and an analytical framework is produced by, depending on the programme, either the Education Committee or the Research Committee. The documents provided by the initial phase then transition into a self-assessment phase in which the head of each organizational unit coordinates the self-assessments. The results of these assessments, as well as preliminary action plans that adjust for self-identified discrepancies are then reported back to the research and education board. The board reviews the results and identifies further shortcomings and areas for development. The action plan is then amended with the findings and subsequent recommendations from the board.⁹²

The second and third year is characterized by the Board allocating improvement mandates to the heads of the organization units affected, which in turn implements interventions in order

⁸⁹ Försvarshögskolan. (2018). Försvarshögskolans Regler och Modell för Utvärdering av Utbildning på Grundnivå, Avancerad Nivå och Forskarnivå. P. 1.

⁹⁰ Försvarshögskolan. (2018). Försvarshögskolans regler och modell för utvärdering av utbildning på grundnivå, avancerad nivå och forskarnivå. PP.12-13.

⁹¹ Ibid. P. 5.

⁹² Ibid. PP.5-6.

to meet the requirements of the action plans. The process is monitored by the board once every trimester through meeting in which reports from affected organizational units are presented.⁹³ The Board then reports its findings to the principal.⁹⁴ The trimester meetings thus create opportunities for the Board and principal to follow up the progression of the interventions, while also allowing for a more flexible approach regarding adjusting interventions as a situation develops.⁹⁵ One internal cycle of evaluation is then alternated with an evaluation cycle which incorporates an external assessment party (UKÄ).⁹⁶

3.5.6.3 The Swedish Defence University's Rules and Model for Educational Evaluation with External Assessment

The regulations outlined in the policy document describe the procedures for using external assessors to evaluate SEDU programs.⁹⁷ The document details the purpose of evaluation, the division of responsibilities, the composition and working procedures of the assessment team and a specification of the documents to be included in assessment. Finally, the document details a feedback mechanism that, in line with quality assurance, roughly outlines how recommended interventions generated from external assessments are supposed to be implemented in the format of an action plan.⁹⁸

3.5.6.4 Quality Policy for the Swedish Defence University's Education, Research and Cooperation

The document specifies that the aim of the policy document is to support quality assurance work at SEDU through the description of its goals and by detailing *how* the work is conducted and structured. The document outlines the purpose and ambition of quality assurance work at SEDU, describes goals and specifies the division of responsibilities in general terms.

⁹³ Försvarshögskolan. (2018). Försvarshögskolans regler och modell för utvärdering av utbildning på grundnivå, avancerad nivå och forskarnivå. PP. 6–7.

⁹⁴ Ibid. PP. 9.

⁹⁵ Ibid. P. 10.

⁹⁶ Ibid. P. 7.

⁹⁷ Försvarshögskolan. (2018). Försvarshögskolans regler och modell för utbildningsutvärdering med extern bedömning. P. 1.

⁹⁸ Ibid. P. 13.

3.5.6.5 Guidance for the Review of Quality Assurance Systems in Higher Education Institutions for Research revised May 2021

The UKÄ states in the report that it conducts assessments of HEIs' quality assurance work in order to examine whether it helps in the enhancement and development of quality of research in an efficient and structured way. The evaluation focuses on how higher education institutions handle information produced through monitoring, peer review, and evaluation processes.⁹⁹ The report details the two main assessment areas; (1) *Governance, organization and implementation*, and (2) *Preconditions*.

3.5.6.5.1 Governance, Organization and Implementation

Governance, organization and implementation assesses the structuring of a HEI's systematic quality work. Areas of interest concern the division of responsibilities and how staff involvement works, cooperation and exchange of information and experience between staff at various levels as well as processes used within a HEI to identify and address problems. It also includes the processes of peer-review and implementation, and how these are used to gather information and act.¹⁰⁰ The report details three grounds for assessment.¹⁰¹

3.5.6.5.2 Preconditions

Preconditions assess a HEI's capacity to monitor, develop and maintain an appropriate environment for staff to work in. The criteria of assessment outlines specific good-practice conditions in relation to how quality research can be conducted, and it specifies specific conditions that the HEI's quality assurance system should be able to address.¹⁰² The report details eight grounds for assessment.¹⁰³

⁹⁹ Universitetskanslerämbetet. (2019). Vägledning för Granskning av Lärosätenas Kvalitetssäkringsarbete avseende Forskning reviderad maj 2021. P. 6.

¹⁰⁰ Ibid. P. 9.

¹⁰¹ Ibid. P. 10.

¹⁰² Ibid. PP. 10–11.

¹⁰³ Ibid. PP. 11-12.

3.5.7 TMA Quality Assurance Policy

This chapter presents the quality assurance policy documents that outline how quality assurance work is conducted within TMA. Overarchingly, the quality assurance system presented in the documents outline a comprehensive model that is nuanced in their description of what the quality strategy encompasses, and how this relates to the institution in question. The documents describe the quality assurance system in the format of three larger elements; 1) *Directional elements*, in which the mission statement, quality policy and strategies for specific areas of interest are detailed. 2) *Implementing elements*, which features processes of specific committees, the quality control loop, and the annual control cycle. Lastly, 3) *Control elements*, in which the key figure system and reporting procedures are outlined.¹⁰⁴ The documents used in the analysis of TMA are the following:

1. Quality Management Manual Part 1 Edition 2021.
2. Quality Management Manual Part 2 Edition 2021.

3.5.7.1 Quality Management Manual Part 1 Edition 2021

The manual describes the internal mechanisms for quality assurance at TMA in general terms. Additionally, the document outlines the vision, mission statement, and quality policy from the Federal Ministry of Defence regarding basic officer education.

3.5.7.2 Quality Management Manual Part 2 Edition 2021

The manual detail the quality assurance system of TMA in a comprehensive manner and describes the different processes and functions to length. The quality assurance system of TMA can be understood as a process tree in which two main processes run; an *annual control loop*, helmed by the steering group, in which concurrent smaller *quality control loops* are ran by every respective process owner applicable to down to the individual practitioner level.¹⁰⁵

¹⁰⁴ Federal Ministry of Defence. (2021). Quality Management Manual Part 1. PP 4-5. Author's remark: The manual was provided by TMA in its original language, German, and was subsequently translated.

¹⁰⁵ Federal Ministry of Defence. (2021). Quality Management Manual Part 2. P. 18. Author's remark: The manual was provided by TMA in its original language, German, and was subsequently translated.

3.5.7.2.1 Quality Control Loop

The smaller feedback loops can be described ongoing processes in which desired results are anchored to an intervention, the intervention is then systematically implemented, and the results are subsequently verified and analyzed. The intervention is then adjusted for in order to further optimize for desired results, and the quality control loop starts anew.¹⁰⁶

3.5.7.2.2 Annual Control Cycle

The starting point of the quality assurance system is developed through a thorough examination of the strategic principles, the *raison d'être*, provided by the Federal Ministry of Defence. These principles contain the strategic goals which instill the scope and objectives of the Universities of Applied Science, in which setting TMA provides PME within.¹⁰⁷

Through the incorporation of top management and heads of work-, study program-, expert group and institutional management, the steering group effectively creates a workspace that facilitates transfer of information between each respective process owner. The steering group's priorities are: 1) to identify the requirements for a successful higher education, 2) coordinate the implementation of identified interventions that will fulfill requirements, and (3) prepare relevant documentation and information in relation to the institutions and relevant stakeholders.¹⁰⁸

Furthermore, with the strategic principles in mind, the steering group outlines a mission statement in relation to the overarching study courses, while bearing the principal responsibility of evaluation and development of strategies and values that ensures that the strategic goals provided indirectly by the Federal Ministry of Defence are met.¹⁰⁹

The operationalized specifications based on the goals are then passed down from the steering group, via the expert groups which process them further, down to the specific institutions that handle education. At the institutional level, institutional management further process infor-

¹⁰⁶ Federal Ministry of Defence. (2021). Quality Management Manual Part 2. P. 26.

¹⁰⁷ Ibid. P. 27.

¹⁰⁸ Ibid. P. 7.

¹⁰⁹ Ibid. P. 8.

mation and prepares it for the lower levels.¹¹⁰ This top-down process guarantees, in theory, that while education is designed to meet the imperatives of the stakeholders, the Federal Ministry of Defence amongst others, there are still mechanisms that allow for adaptation. After implementation at the institutional level manifested through a study programme, the academic results and degree of compliance with the strategic goals are evaluated.¹¹¹

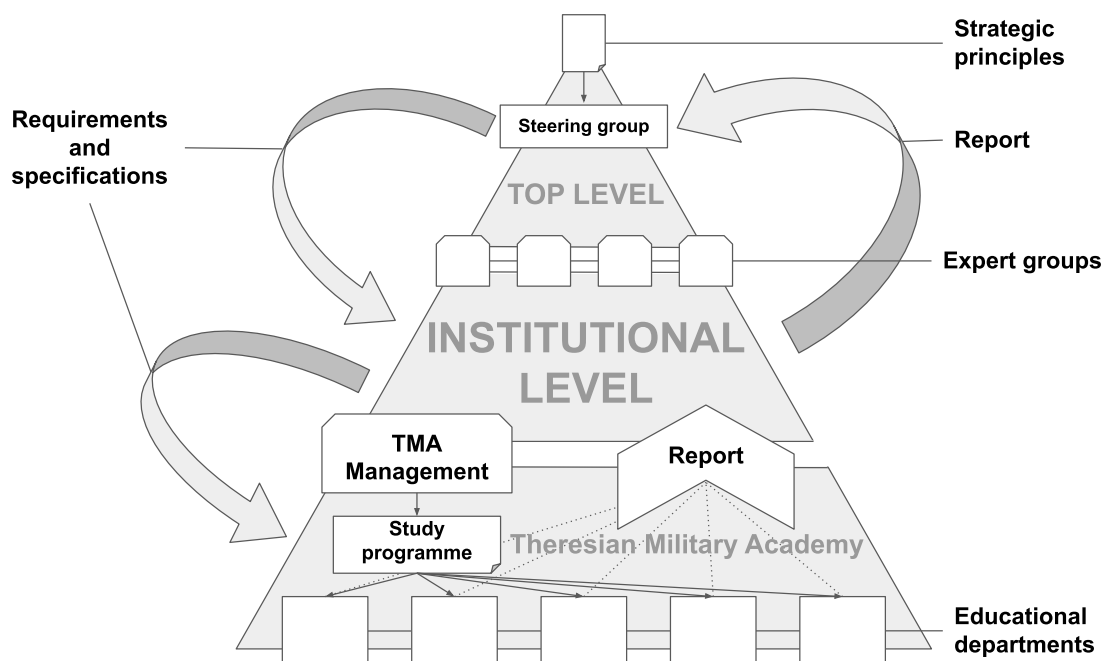


Figure 3. Visualization of the quality assurance system at TMA, the informational flow, and its stakeholders.¹¹²

If goal achievement in key areas such as *strategic objectives* and *implementation fidelity* is not within a certain pre-defined threshold, this triggers mechanisms for analysis, evaluation and development.¹¹³ The actionable unit closest in proximity to an issue works to adjust and reach target goal achievement.¹¹⁴ In short, this yields a feedback mechanism that is designed to generate input from the lower levels and through a bottom-up design try to solve an issue before elevating it to the next. Each level collects data, does analysis, evaluates and presents recommendations in order to fulfill desired goal achievement levels. If unable to satisfy at a lower

¹¹⁰ Federal Ministry of Defence. (2021). Quality Management Manual Part 2. P. 27.

¹¹¹ Ibid. PP. 27-28.

¹¹² Ibid. P. 28. Author's remark: the graphic visualization of the quality management system is the author's own work but draws heavily from the original source.

¹¹³ Ibid. PP. 19, 27.

¹¹⁴ Ibid. P. 28.

level, the corresponding level reports upwards to the next level and specifies what resources it would need to resolve an issue, and in which time frame. Lastly, if push comes to shove, the steering group has the penultimate responsibility to see it that the strategic goals are met.¹¹⁵

¹¹⁵ Federal Ministry of Defence. (2021). Quality Management Manual Part 2. P. 28

3.8 Results of Research

3.8.1 Completed Core Components Model Analysis Tool

| | SEDU Quality Assurance | | | TMA Quality Assurance | | |
|-------------------------------------|------------------------|-----------------------------|-----------|-----------------------------|-------------------------|-----------|
| | FOUND | PARTIALLY | NOT FOUND | FOUND | PARTIALLY | NOT FOUND |
| Staff Selection | | X ¹¹⁶ | | | X ¹¹⁷ | |
| Pre-Service/INSET Training | | X ¹¹⁸ | | | X ¹¹⁹ | |
| Consultation and Coaching | | | X | | | X |
| Staff Performance Evaluation | | X ¹²⁰ | | X ^{121,122} | | |
| Decision Support Data Systems | | X ^{123,124} | | | X ¹²⁵ | |
| Facilitative Administrative Support | | X ¹²⁶ | | X ¹²⁷ | | |
| Systems Interventions | | | X | X ¹²⁸ | | |

Figure 3. Completed Core Components Model Analysis Tool

¹¹⁶ Försvarshögskolan. (2018). Försvarshögskolans Regler och Modell för Utvärdering av Utbildning på Grundnivå, Avancerad nivå och Forskarnivå. P. 9.

¹¹⁷ Federal Ministry of Defence. (2021). Quality Management Manual Part 2. P. 9.

¹¹⁸ Universitetskanslerämbetet. (2019). Vägledning för Granskning av Lärosätenas Kvalitetssäkringsarbete avseende Forskning reviderad maj 2021. P. 11.

¹¹⁹ Federal Ministry of Defence. (2021). Quality Management Manual Part 2. PP. 14-15.

¹²⁰ Försvarshögskolan. (2018). Försvarshögskolans Regler och Modell för Utvärdering av Utbildning på Grundnivå, Avancerad nivå och Forskarnivå. P. 3.

¹²¹ Federal Ministry of Defence. (2021). Quality Management Manual Part 2. P. 11.

¹²² Ibid. P. 19.

¹²³ Försvarshögskolan. (2018). Försvarshögskolans Regler och Modell för Utvärdering av Utbildning på Grundnivå, Avancerad Nivå och Forskarnivå. P. 5.

¹²⁴ Ibid. PP. 11-12.

¹²⁵ Federal Ministry of Defence. (2021). Quality Management Manual Part 2. P. 29.

¹²⁶ Universitetskanslerämbetet. (2019). Vägledning för Granskning av Lärosätenas Kvalitetssäkringsarbete avseende Forskning reviderad maj 2021. P. 11.

¹²⁷ Federal Ministry of Defence. (2021). Quality Management Manual Part 2. PP. 23-24.

¹²⁸ Ibid. P. 20.

3.8.2 Findings of Operationalized Variables in SEDU Quality Assurance Documents

The SEDU quality assurance documents contain generalized descriptions of the variables, which yielded no complete findings, five partial findings and two variables without any match. The partial findings are motivated due to their descriptions being ambiguous, as documented and referenced in the completed analysis tool. Almost all findings were within one of the SEDU documents. This is largely attributed to the fact that both the publicized regulatory documents from SEDU share and describe the same process cycle of quality assurance in an almost identical fashion.

The regulatory document detailing the quality assurance process with external evaluation contains additional information regarding support processes for external evaluation, and therefore yields the same input regarding the mechanisms of quality assurance within the institution. The guidance document publicized by UKÄ contain descriptions of several variables, but the descriptions does not compensate nor complement for any lacking sub-variables compared to the findings in the SEDU documents. Thus, one variable is attributed to the UKÄ document while the other 4 findings tie back to the SEDU document. The policy document from SEDU yielded zero findings.

3.8.3 Findings of Operationalized Variables in TMA Quality Assurance Documents

The TMA quality assurance documents describe their quality assurance processes in a definition that can be described as satisfactory, resulting in three complete findings, three partial findings and one variable that could not be found. All the findings were within one document, Manual 2, which is more detailed compared to Manual 1.

The findings have been cross-checked with the lead quality management officer at TMA due to the possibility of errors during translation. The results were corroborated in that the variables *partially* and *not found* either 1) are not described in the documents, or 2) do not have corresponding processes.

3.9 Discussions of Results

The results indicate that while both SEDU and TMA utilize a quality assurance system that is cyclical in design, they have elected to use two different systems. Both quality assurance systems have key stakeholders that organize change from a top-bottom perspective, and both systems generate feedback through a bottom-top structure using evaluations, which is used as basis for further evaluation. The latter underlines the strength that is SEDU's use of student involvement in the evaluation teams and assessment process. At TMA, students are used to aggregate feedback, while SEDU incorporates them to a higher degree in the quality assurance work. A possible outcome is that through incorporating students to a higher degree, they are more likely to feel a larger commitment and responsibility towards the school and programme. In turn, this would likely strengthen the bottom-up mechanisms since these mechanisms rely on feedback from the lower levels in order to generate input at the higher levels.

Neither institution describes any functions of pre-service nor in-service training for staff. There are however mentions of mentoring, and both institutions state clearly that they *encourage* staff in their further development. This is not enough to sustain implementation fidelity. Therefore, since both institutions are sympathetic to the idea of further training, allocating coaching resources for staff that both appropriately serves implementation fidelity while addressing the need for continual development on the individual level would seem like the sensible solution.

While the SEDU documents provide descriptions regarding the evaluation cycle frequency, there are no descriptions of how performance is evaluated. On the other hand, staff performance evaluation is a clear priority at TMA. The manuals comprehensively detail the processes of evaluation and contextualize them within the greater evaluation cycles. This leaves little room for questions regarding their purpose and how performance metrics trigger interventions. There are, however, due to the limited involvement of the students other than as aggregators of grass-root data, questions regarding the students' perception towards the large number of evaluations they are tasked with. It could be argued that their perception, facilitated through feelings of commitment and involvement (or lack thereof), will directly impact both the quality and quantity of the gathered feedback. Thus, since evaluable data is invaluable, a pragmatic solution would be to: 1) educate the sources of feedback on why their involvement

is essential, 2) create a space that facilitates further commitment, involvement and foster an understanding of the sources as shareholders in the quality assurance system, and 3) make information regarding the results and progress available at a large scale to all stake-, and shareholders in order to reinforce the feelings of commitment from *both* a top-down and bottom-up perspective. This would in turn likely increase implementation fidelity.

Both SEDU and TMA outline in their documents an ambition to make relevant data available for their staff. In the case of SEDU, this is described as the responsibility of the Board but without further clarification in how, and through which systems, the data is supposed to be made available. This is problematic in that it can make the small wins previously discussed celebrated at a lesser rate since fewer have heard about them. The TMA regulatory documents provide a clearer description as to which systems are in play, and how they are used. Thus, since streamlining the informational output venues would likely yield a higher interest in them, it would be advisable to specify this with the highest possible definition in the quality assurance documents to increase transparency and visibility for stake-, and shareholders.

The documents publicized by SEDU doesn't adequately describe any processes or functions that yields a match regarding the *facilitative administrative support* variable. The UKÄ does partially match a process but lacks descriptions of how it is supposed to be practically implemented. Again, the TMA documents provide a clearer description in what the function is, how the process works and who the responsible parties are. In the case of SEDU, corresponding functions likely exist. Regarding the variable *systems intervention*, TMA provides a clear description of the outwards-communicating processes at the institution. The SEDU documents lack any descriptions, although much like the case regarding facilitative administrative support, corresponding functions likely already exist. A reasonable proposal would thus be to make a concerted effort by each institution to further develop the description of the functions and processes in greater detail since this would aid in the continual maturation of the respective component.

On the topic of composite groups, a strength of SEDU is the detailing of student involvement in the evaluation teams and assessment process. At TMA, students are used to aggregate feedback, while SEDU incorporates them to a higher degree in the quality assurance work. A possible outcome is that through incorporating students to a higher degree, they are more like-

ly to feel a larger commitment and responsibility towards the school and programme. In turn, this would likely strengthen the bottom-up mechanisms that rely on feedback from the lowest levels in order to generate data.

Furthermore, there are no forced functions of implementing the recommended actions that are crystallized at the end of an evaluation cycle. These actions are recommendations after all. Thus, the evaluation cycle can shortchange itself by doing all the hard work while lacking a function that commits it to the implementation of a recommended intervention.

3.10 Restrictions of Validity

The results of this study are based on the current state of the quality assurance work being conducted at TMA and SEDU respectively. The author acknowledges that since the work of quality assurance exist within its own cycle of continuous improvement, the study only provides a snapshot of how quality assurance processes work at the time of writing. Thus, results are valid for the programmes running in 2022.

4. Concluding Chapters

4.1 Benefits for Scientific Disciplines

This thesis investigates how the field of PME can be linked with the field of implementation research in order to maximize the education and training of military personnel from the perspective of quality assurance.

The study provides a thorough overview over the current state of PME in which a set of shortcomings in the literature are identified. The thesis then works to address a selection of shortcomings by linking PME with implementation research, by reviewing how quality assurance is described within the confines of two institutions that provide professional military education.

In particular, the results of the thesis would be interesting for the management of both SEDU and TMA, since it evaluates their quality assurance work. Furthermore, the cross-fertilization between PME and implementation research has yielded results that would be of interest for institutions that provide PME worldwide. This also reflects the results importance for the officer. At the heart of all military activities lie a fundamental need to learn, improve and excel. The officer functions as both a leader and an educator, amongst other roles, and quality assurance has the potential to enhance both of these functions.

The implementation components are non-discriminatory in that they apply universally in situations where interventions are implemented in an organizational context. Since quality assurance is all-encompassing in that it incorporates the interests of both educators and educatees, from both a military and civilian perspective, the possible benefits from the lessons learned in this study go beyond the scope of PME and further into education at large.

4.2 Prospects

Due to the limited scope of the study, the quality assurance processes at SEDU and TMA have been examined based on descriptors in the associated quality assurance documents. The study is thus limited to how each institution defines their own quality assurance in theory. How the quality assurance processes work in practice is consequently still unknown. As noted, the processes are often described in general terms. Therefore, prospects lie in the examination of how the quality assurance processes are practically implemented, and how well the theoretical definitions correspond with the practicalities of implementation.

4.3 Summary

The study provides a thorough overview over the current state of professional military education in which a set of shortcomings in the literature are identified. The thesis then utilizes a qualitative approach to address the problem of how interventions can be implemented in order to maximize the positive results. First, the thesis describes different concepts and the mechanisms that underpin implementation fidelity. Secondly, the thesis provides a conceptualized model that lends itself to analysis of the components that underpin implementation fidelity. Thereafter, the regulatory documents that detail the quality assurance processes of TMA and SEDU are presented and analyzed, which in turn provides answers to the research questions.

The results show that while some operationalized variables can be found, the regulatory documents exhibit different ratios of variables depending on the set of regulatory documents. SEDU documents exhibit less descriptive matches, while TMA yield more. Neither sets of regulatory documents display the variable *coaching*.

The main research question of the thesis is the following:

How might implementation research facilitate and enhance processes of quality assurance within the field of PME?

Conclusively, implementation research can enhance quality assurance processes within the field of PME by, as the study has exemplified, outlining the processes that underpin and sustain implementation of interventions. The core implementation components model defines seven components that underpin and sustain such processes, which can be considered ubiquitous whenever interventions are implemented in an organizational setting. This thesis has argued that the core values of PME can be found within its abilities to transfer knowledge, skills and competencies. Since education is dynamic in nature and prone to innovation and change, the methodical and scientific implementation of change in order to maximize programme output lies in the favor of both stake-, and shareholders. Therefore, implementation fidelity should be considered a priority when adjusting for change.

5. Annexes

5.1 List of Literature

5.1.1 Books and Journals

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