
Researching vocational education and training: An international perspective¹

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ABSTRACT

This article investigates a German initiative to fund a research programme on international development cooperation in vocational education and training (VET). It briefly describes the strands of the programme and critically reflects on them. It is considered important that this programme be initiated to stimulate research on international VET development cooperation because, while there are institutes for and programmes on VET research, research on VET is modest in volume compared with that of educational research on elementary or secondary education. The article also considers priority areas for VET research that are part of the programme and expands on these, using a number of VET research themes and topics. An important conclusion is that in research on international VET development cooperation it is important to pursue a balanced approach by taking the practical, political, administrative and scientific factors into account. These factors all play a role at the national, regional and local levels. Too much pragmatism or too isolated a scientific specialisation should be avoided. Respectful cooperation between all the stakeholders is imperative, and is especially important in projects that combine researchers with a predominantly long-term perspective and teachers and managers with a mainly short-term outlook. Finally, I express the hope that more national governments would follow the example of Germany. Their doing so would definitely raise the profile of international VET research, which is absolutely needed.

KEYWORDS

vocational education and training; VET research; international cooperation; research funding; continuous professional development; vocational education

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Introduction

Most countries in the world have educational research programmes. The same holds true for continental or global institutes such as those of the European Union (EU) and the Organisation for Economic Co-operation and Development (OECD). However, not many investors in educational research have research on initial and continuing vocational education and training (VET) high on their agendas. There are institutes and programmes, but compared with the volume of educational research on elementary or secondary education, research on VET is modest in volume. Large international organisations such as the United Nations Educational, Scientific and Cultural Organization (UNESCO), the International Labour Organization (ILO), the World Bank and the OECD do have international cooperation programmes and regularly publish their research (OECD, 2015; World Bank, 2018). However, there was a time when investment in VET was discouraged, such as by the World Bank (Psacharopoulos, 1973, 1985, 1994; Psacharopoulos & Patrinos, 2002) and when respected researchers (Dronkers, 1993) presented research that advised the public to follow general education tracks instead of vocational tracks.

While there may be compelling statistics to back up these views, VET is often the right choice for many students. Instead of seeing vocational education as a second choice, it would be better to position it as a first choice, given the need for well-educated graduates in vocations and professions at the lower, intermediate and higher levels, albeit that these needs may be geographically diverse. Youth unemployment may be an impeding factor, but should not be an excuse for disinvesting in and discouraging the choice of vocational education. On the contrary, VET provides skills which are badly needed, more particularly in countries or regions where economic and labour market conditions are challenging. If jobs are not available, VET can also play an important role in contributing to self-employment and entrepreneurship. An important element in the advocacy of VET is research that builds a knowledge base regarding the questions that confront VET across the world. In view of this, the following sections highlight a particular knowledge-building initiative and its intended research programme.

A new programme on research on the internationalisation of VET

Given the scarce funding available to VET researchers outside the few large institutions mentioned above, it is exciting that some countries are starting their own international VET research programmes. An illuminating example of this is the international VET research programme of the Institute for Vocational Training Research (IBBF), the Internationalisation of Vocational Education and Training unit of the Federal Ministry of Education and Research in the Federal Republic of Germany.

It is in fact not very surprising that Germany took the initiative to strengthen research on VET from an international perspective, since the body of knowledge already accumulated by German VET scholars during the past few decades is impressive (Rauner, 2005). This scholarship has become a beacon in the world of international VET theory and research. Various themes have been popular in German VET research: the dual system (Spöttl, 2016), vocational didactics

(Nickolaus, 2008), VET curriculum development (Reetz & Seyd, 2006), VET teacher training (Kunter et al., 2013), competence modelling and measurement (Bonz, 2001; Cortina & Thames, 2013), and VET research itself (Sloane, 2006).

The international VET research programme of the IBBF mentioned above covers four research themes which are well known in VET research and which are relevant in the context of international VET development. These themes are:

- cooperation between employers and trade unions, industry organisations and the government;
- learning within the work process;
- acceptance of national standards; and
- qualified vocational education and training staff.

Research on these themes is, however, not unproblematic and the following precautionary considerations should be observed in respect of each of the themes.

Cooperation between employers and trade unions, industry organisations and the government

The first research theme is about the cooperation between employers and trade unions, industry organisations and the government. This is a strong asset of the German VET system; it reflects the value which is attached to sectoral social dialogue within the EU (European Commission, 2016). In international development, however, VET research should rest on the assumption that there is either no or an underdeveloped level of sectoral social dialogue in VET. When well established, the sectoral social dialogue can result in innovative VET policies and practices, but it becomes problematic when there is little organisation of the dialogue, when partners do not intend engaging in dialogue at all, or when the knowledge gaps between the government, education and industry are so wide that little value can be added by maintaining relationships.

Whereas the development of relationships in education is seen as essential to educational change (Fullan, 2016), there are enough countries in the world where this important notion is difficult to realise. For instance, in agricultural VET development projects in Ethiopia, Kenya and Uganda, which were based on an inclusive model of cooperation between producers' associations and education and government agencies, real sectoral social dialogue proved to be extremely difficult. Access to companies, effective government facilitation and the responsiveness of education all appeared to be quite challenging (Mulder & Gulikers, 2011; Mulder & Kintu, 2013). But the participation of social partners for innovation in vocational education is not confined to developing countries, as a study of EU VET development projects, for instance, revealed that the participation of social partners is not self-evident and needs special attention (Mulder, 2006).

Therefore, research on international VET development should be aware of the complexities of the cultural, structural and economic factors that affect VET as a social practice and should

assume that these factors will play out very differently compared with the home country of the researchers or their funders.

Learning within the work process

The second theme is learning within the work process, which is understood to be a key component of real competence development in the practices of work, as has been put forward by Billett, Harteis and Gruber (2011) and others (Malloch, Cairns, Evans & O'Connor, 2011). However, while being very topical these days, it is not a given that all work processes allow learning that is productive for the person, the team and the organisation. Work situations differ to the extent that they are supportive of learning: much is dependent on the learning culture of the organisation (Senge, 1990; Marsick & Watkins, 2003). Many students and starting workers are bullied, maltreated or exploited. And while this may seem unthinkable to some, there have been accounts of apprentices not being trained at their workplaces because the workplace trainers feared that, by training them, they would put their own jobs at risk, as they themselves did not have the same level of training as their apprentices (Mulder & Gulikers, 2011).

In addition to the insights that not all working places are good learning spaces, there are also researchers who have doubts about public interference in learning within the work process, which may be due to matters of culture and vision, but also of history and regulatory frameworks. Not everyone, therefore, embraces the concept of learning within the work process without reflecting on the factors that influence learning opportunities at work.

Nonetheless, it is evident that work process knowledge, as indicated by Fischer and Rauner (2002), is essential, and that it takes time and continuous practice to become and remain a master of one's craft, or to become an 'expert'. It was surprising, therefore, during an interview in previous research, to hear a co-owner of a construction company say that the employees in the company were not being trained and, what is more, that they did not need any further training at all. 'They are good as they are – they have all the skills needed for their work,' he opined, as if investment in lifelong learning would be a disqualification, damage the reputation of the company and hurt their chances of getting work. This view may be quite surprising and exceptional, but, when it comes to learning within the work process, profound differences in views and models are in place. For instance, there are significant divides between the Hellenic, Roman, Rhineland, Eastern European and Anglo-Saxon models of vocational education. These evince a world of difference (OECD, 2010), in addition to the differing roles of education in the labour systems of France, Germany and the United Kingdom (Lane, 1990).

Finally, there are many theories about workplace learning, for example:

- Professional competence (Mulder, 2014; 2017a)
- Professional knowledge and competence (Eraut, 1994)
- Competence and expertise (Evers & Van der Heijden, 2017)
- Mimetic learning (Billett, 2014)

- Experiential learning (Kolb, 2015)
- Communities of practice (Lave & Wenger, 1991)
- Boundary crossing (Akkerman & Bakker, 2011).

Simultaneous use of different theoretical orientations, which is inherent in international development cooperation, can often either facilitate or frustrate cooperation. But it may be difficult to reconcile opposing beliefs in education, learning theories and professional epistemologies, which can result in confusion, repeated re-badging practices or even inertia.

Acceptance of national standards

The third theme is the acceptance of national standards. In international cooperation regarding VET, mutual acceptance of national standards is always a difficult issue. This is the domain of qualification comparison. Countries have their own agencies which undertake these comparisons, which are required for admission to national education institutions. To facilitate the process of comparison and to assist employers and students with making levels of qualifications more transparent, regional and national qualifications frameworks have been or are being established. Developing these frameworks is, however, not an easy task. Winterton (2011) has provided an excellent review of the European Qualifications Framework (EQF) process, research which is ongoing.

However, France, Germany and the United Kingdom all have different ways of dealing with the EQF in their national qualifications frameworks (Mulder, Weigel & Collins, 2007; Mulder, 2017b). Whereas it is generally acknowledged that the three pillars of the EQF are knowledge, skills and competencies, the United Kingdom does not use the term ‘competence’, France prefers ‘savoir’, ‘savoir-faire’ and ‘savoir-être’, and Germany has two constituents of competence: professional and personal. Professional competence is further divided into knowledge and skills, which historically were fundamental elements of vocational and professional education. Personal competence refers to social competence and to autonomy.

There are no indications whether these country differences will endure or will gradually converge, but, since these differences relate to the historical and political contexts of each of the countries, they are likely to persist. An important question in this respect is: How do these differences relate to the efficacy of the respective VET systems?

Qualified VET staff

The fourth theme for research which is proposed is about qualified VET staff. Increasing the knowledge and experience of VET staff often goes under the label of either ‘capacity development’ or ‘continuous professional development’ (Day, 2017). It is regarded as being an important factor in educational change (Fullan, 2016) and quality improvement (Hattie, 2008). There is no doubt that capacity development is needed in many aspects of VET, as in policy-making, administration, organisation, management, curriculum development, learning

and instruction, multimedia use, assessment of educational achievement, programme evaluation and quality management.

However, there is a negative outcome of capacity development in international VET development projects: brain drain. Here, higher levels of competence create greater ambition for placements with better career potential, preferably in organisations based in Western societies (Mulder & Gulikers, 2011). This, however, should not be an argument in the debate on continuing international VET development cooperation. Seen from a national, international or even global perspective, this phenomenon may have its advantages, as better qualified people get to take on important jobs that enable them to make a bigger overall contribution to the same cause. In the short term, though, it is a loss to the organisation in which the capacity development took place and which depends on the new knowledge and skills developed in their staff.

Priority areas for VET funding

In addition to the themes discussed in the previous section, the IBBF programme has proposed three priority areas for funded VET research, these being:

- current issues in VET research on VET cooperation;
- prerequisites for successful VET cooperation; and
- capacity-building in VET research.

While these priority areas are not mutually exclusive, nor are they the only important areas for VET research, they tend to cover a broad spectrum of topics, which, taken together, can increase exponentially the knowledge base on international development of VET. These priority areas are now elaborated on briefly.

Current issues in VET research on VET cooperation

Themes under this umbrella are empirical VET research, business education and subject didactics. These are typical German research priorities, but in an international research context these themes should also be problematised from an international perspective. For instance, is 'didactics' the same as pedagogical content knowledge (PCK) (Darling-Hammond, 2006) or technical pedagogical content knowledge (Niess et al., 2009; Koehler & Mishra, 2008), or does it refer to the didactics of vocational education (Nickolaus, 2008), the didactics of specific subjects or more to the generic educational issues in VET, such as shaping competence (Rauner, Rasmussen & Corbett, 1988), deep learning or workplace learning?

Prerequisites for successful VET cooperation

The second priority area is about prerequisites for successful VET cooperation. Proposed research in this priority area could refer to the European Commission's (2015) report on international cooperation in VET, which outlines drivers and obstacles for engaging in

international cooperation in VET and factors contributing to successful international cooperation in VET. Some insights from this report are set out below (see Figure 1).

In addition to these established factors, prerequisites at the macro-level could be examined, for example the legal frameworks for VET, responsible public administration for VET, political intentions with regard to VET, funding frameworks for VET and the degree of private initiative in VET. These macro-level issues also act as success factors or obstacles in VET cooperation, VET regulation and VET research.

Related to the macro-level, the micro-level of cooperation practices between partners may be embedded in the macro-level to supersede conditions for cooperation. At the micro-level, an important issue is how to avoid hypermobility among project partners as a result of capacity-building and networking in VET cooperation projects, as mentioned earlier. Additional perennial questions in partnership projects are: How can VET cooperation projects achieve sustainable results once project funding ends?; and: What is the optimal duration of a project for it to achieve real and meaningful change? What are the elements of this change? Is it really related to the increase in the learning results of the students? Similarly, how can impact be monitored? And how can valid and reliable data be collected on the success of VET initiatives?

Figure 1: Success factors and obstacles in international VET development cooperation (European Commission, 2015)

Success factors	Obstacles
<ul style="list-style-type: none"> • Embed initiatives in a wider outreach strategy • Establish equal levels of commitment on both sides of the partnerships • Invest in tailor-made models of VET for specific needs and contexts • Include teachers who understand organisational and geographical specificities and can establish participation of teachers and trainers despite receiving no additional incentives • Provide outreach activities conducted by local representatives to coordinate and promote cooperation 	<ul style="list-style-type: none"> • Time needed to establish cooperation should not be underestimated • Bridging the different cultures of business, education and intercultural exchange • Visa problems which hamper mobility to study abroad • Differences in labour market regulations which limit worker mobility • Limited marketing or support from public authorities • Companies must be convinced of the added value of the programmes they support • Mobility funding if parents and/or students have to partially or fully cover the costs

Capacity-building in VET research

The third priority area is related to the fourth research theme mentioned above, which is about capacity-building. Capacity-building has been an activity in many domains, and there are different experiences with it, different approaches to it and different findings about its efficacy. An example is the work of Liberato et al. (2011), which provides an overview of different models of measuring capacity-building among communities in public health. The insights from this review can easily be translated to capacity-building in the VET research community.

The study suggests that there are nine domains which are important in assessing capacity-building:

- learning opportunities and skills development;
- resource mobilisation;
- partnership/linkages/networking;
- leadership;
- participatory decision-making;
- assets-based approach;
- sense of community;
- communication; and, finally,
- development pathways.

Another study (DFID, 2010:3) distinguishes between three capacity-building levels: the individual, the organisation and the institution. The first level may be obvious; it is described as ‘involving the development of researchers and teams via training and scholarships, to design and undertake research, write up and publish research findings, influence policy makers’, and so on. The distinctions between the second and third level of capacity-building may not be as clear. Organisational capacity development refers to ‘developing the capacity of research departments in universities, think tanks and similar entities, to fund, manage and sustain themselves’ (op cit.:3), whereas institutional capacity development means ‘changing, over time, the rules of the game’ (op cit.:3) and considering the incentive structures, the political regulatory context and the resource base in terms of which research is undertaken and used by policy-makers.

At the ‘meso’ level, capacity development in VET research can also be targeted at these three levels: First, working together on a one-to-one basis with individuals and teams, providing VET research and development training, providing scholarships for master’s and PhD studies, and jointly undertaking research and publications in relevant VET research journals. Secondly, developing the expertise of VET management and VET teacher-training departments at universities. Thirdly, developing better conditions for VET research by creating new institutes for VET curriculum development, VET test development, VET management and VET teacher education with units for VET research; creating positions for VET professors in different fields and specialisations; outlining tenure track systems for VET faculty members; improving assessment and reward systems; and establishing regulations and frameworks by which the VET research, policy and practice community can benefit.

Research into the internationalisation of VET has elements that can be positioned at all three levels – the individual, the organisational and the institutional – by providing scholarships. An element of this is the establishment of chairs at partner universities to train VET teachers and administrative staff at vocational schools and institutes, and of institutions for VET research. Establishing chairs and developing or redesigning diploma, bachelor’s, master’s and doctoral programmes for VET management and teacher education are badly needed in many countries, as much of this has been neglected during the past decades, not only in the global south, but

also in other parts of the world. The funding scheme in itself is an instrument with which to create change at the institutional level.

Issues at stake here include: What positions will chairs in VET teacher training, management training, and research get in the institutional context they are working in, given the scarcity of research funding and the local career development system for university staff? Furthermore, to what extent should policy-makers implement a VET system development agenda or stimulate local priority-driven research? How can publication competence be enhanced in order for research to be successfully published in high-level journals? Are the support systems of large academic publishers, aimed at helping authors in developing countries, being optimally used and, if so, what are the experiences of this use on the ground?

Overview of VET research themes and topics

As stated herein, the list of research themes of the international VET research programme of the IBBF was not meant to be exhaustive, and, indeed, it is not. This is apparent when the themes are compared with international key reviews of vocational education and vocational education research (see Rauner & Maclean, 2009; Rauner, 2017; McGrath et al., forthcoming). Two earlier international VET research reviews rendered a great diversity of VET research themes. Whereas international handbooks (McGrath et al., forthcoming) often start deductively, the topics of individual studies were clustered inductively in themes that emerged from a review (Mulder & Roelofs, 2012; 2013). Further reflection on the research themes was undertaken; it was subsequently complemented by other reviews and research, which resulted in the series of research themes presented in the most recent handbook. While not intended to be an exhaustive programme for VET research, it can serve as a resource for future VET researchers, having been gleaned from a comprehensive literature review. As this article considers research themes that can guide prospective researchers, a set of clustered themes is given below (also by no means exhaustive).

VET and society

- Cooperative and competitive models of governance of VET
- Cultural aspects and national esteem of VET
- Regulation and deregulation of VET practice and the balance between autonomy and control
- Career perspectives of VET graduates in countries with high unemployment rates
- Personal identity development of VET students
- Public–private partnership and cooperation in VET
- Intensifying and shortening of and reducing dropouts from the VET programmes
- High-level, multi-stakeholder national initiatives to support STEM (science, technology, engineering and mathematics) education
- Stimulating entrepreneurship in VET
- Managing the learning of migrants for social inclusion
- International comparisons of the quality of VET

VET system, policy, organisation and management

- Upstreaming from VET to HE (higher education)
- Making VET a first choice
- International comparisons: from benchmarking to bench-learning
- Developing learning in VET organisations
- Appreciative human resource management in VET
- The role of private training institutions in VET provision to overcome skills shortages

VET teacher education and teacher behaviour

- Competence profiles for and capabilities of VET teachers and trainers
- Continuing professional development in VET teacher development teams
- Roles of experienced professionals in the field in teaching in VET
- Training of in-company VET trainers
- Analysing professional working theories of teachers
- Development of authentic assessment competence
- Stimulating interdisciplinary teacher cooperation
- Developing an enquiry-orientated attitude among teachers

VET curriculum

- Alignment with relevant and current competence frameworks
- Attention to future-orientated competence (robotics; drones)
- Industry 4.0 competence and consequences for VET
- Global competence (intercultural awareness, understanding and diversity)
- Hybridisation of and boundary-crossing in VET programmes
- Stimulating opportunity recognition and realisation in VET programmes to promote entrepreneurship

Learning and instruction in VET

- Evaluating the effectiveness of education and learning theories in VET
- The role of informal learning in competence development
- Working with computer-supported collaborative learning platforms in VET
- The potential of practical and computer simulations and of competitive and social games
- Overcoming challenges in the transfer of learning in VET programmes
- Boundary-crossing: access to internships or apprenticeships
- Effectiveness of and conditions for workplace learning
- ICTs (information and communications technologies) and multimedia (virtual and augmented reality) in VET

Assessment and testing of educational achievement in VET

- Assessment of, for and as learning in VET
- Summative and formative testing in VET
- Authentic assessment and the role of the practical trainer in assessment
- Continuous assessment in VET teaching and learning
- Designing high-quality assessment programmes in VET
- Using rubrics for assessment in face-to-face and online VET programmes

Research studies on themes such as these are in most cases fully embedded in particular VET research traditions and contexts and are not necessarily international in nature. However, mainstream research in educational science, which in most cases is critical from an international perspective, can also prove to be fruitful for VET researchers. Many tend not to refer to this mainstream research, but that should be regarded as a lost opportunity, because, as long as it is published in reputable journals, the quality of this research is generally quite good. For instance, research on teaching and teacher education is in most cases far more advanced in these journals than in typical VET research studies: for one thing, more innovative and advanced methods of data collection and analysis are being used, resulting in higher levels of validity and reliability.

Many universities, research institutes or countries have their own approved lists of journals or journal-grading systems that are used for review and funding purposes. These are the lists high-level university researchers tend to refer to, because their performance is assessed against the listed journals. It may be worthwhile for VET researchers to consult these lists and journals, and the citation indices (the Social Science Citation Index and the Emerging Sources Citation Index especially), and review the current developments in research on a given topic. Doing so can help to improve research proposals, research designs and research publications dramatically.

Strengthening the international VET research community as a long-term goal

A result the IBBF is aiming at through its new research initiative is a strengthened international VET research community. Strengthening this community itself through research cooperation is sorely needed, but it is well understood that building a VET research community and arriving at sustainable research findings will take many years. Existing research cooperatives such as the European Educational Research Association's (EERA) Vocational Education and Training Network (VETNET) and the IBBF's Research Programme on the Internationalisation of VET have the potential really to *deepen* the thematic debates in VET – even more so if common research cooperation activities are facilitated, funded and driven by a responsible authority.

As will be apparent from the discussion about the research themes above, VET research themes are diverse, and so the question that remains is this: To what extent is the convergence of these

themes possible and necessary? Ecologists contend that diversity in ecosystems contributes to their resilience (Elmqvist et al., 2003) and that the response diversity is regarded as being the key to resilience. This seems to be at odds with attempts to converge VET research, as convergence may be necessary for more focused action to occur and a higher level of research quality to be attained. So, finding the balance between the two extremes is important, but by no means easy.

In VET research, two ecosystems are coming together: VET research and VET practice. Here, the ecosystems are governed by different reward schemes: research universities focus on teams which deliver the best research performance; VET institutions focus on the results of their students and the careers of their alumni. Bringing these two ecosystems together has been and still is a challenge.

There needs to be a word of caution here about the publication drift in academia. To what extent should VET research cooperation lead to publication in high-level international journals? This question has been somewhat of a dilemma in Europe. For instance, the earlier *European Journal of Vocational Training* of Cedefop experienced differences of opinion as to its form and purpose, in that there were those among its stakeholders who opted for a straightforward academic journal, while others believed it should be a journal for policy-makers and yet others thought the journal should be used by practitioners – three completely different missions for the journal, but a reality that had nevertheless to be dealt with.

A dangerous pitfall of educational research, therefore, is to aim *exclusively* at scientific specialisation and publication of research only in the top 10% of journals on the relevant list in the Web of Science. An *inclusive* approach in VET research cooperation, advice and capacity development is needed. Of course there should be a scientific mission when research is planned and carried out, but the fact that VET theory is praxeological by nature – that is, a theory about professional *practice* – should not be overlooked. So the connections between VET theory, research and practice are essential, and it should be borne in mind that even at high-end research universities, research assessments these days include the impact of research on society, which has to be monitored and demonstrated by real evidence. What matters is to demonstrate that professionals and practitioners are actually able to use and apply the research findings to improve the learning processes and results of the students – an almost utopian situation probably easier said than done.

A promising development in this respect is that policy institutions such as the IBBF do stimulate international VET cooperation. The international dimension of research cooperation is also strongly supported by Unit 5 on Vocational Training, Apprenticeships and Adult Education of the Directorate General for Employment, Social Affairs, and Inclusion (DG EMPL) at the European Commission. This is backed up by the 2015 report, *Building knowledge on international cooperation in VET* (European Commission, 2015) of the same directorate. As mentioned in the introduction to the EU report, and to elaborate on this, there are other networks at the European and global levels that are active in international VET development and cooperation. They include Cedefop, the Exchange-Traded Fund (ETF), the Asia–Europe

Meeting (ASEM), the ILO, the OECD, UNESCO with its International Centre for Technical and Vocational Education and Training (UNEVOC), the G20, the World Bank and other regional development banks. Some of these organisations also have international VET research on their work programmes. Examples of this are:

- the programme on TVET indicators to improve TVET management, conducted by the Inter-Agency Working Group on TVET Indicators (This Working Group is a subgroup of the Inter-Agency Working Group on Technical and Vocational Education and Training and consists of experts from the Asian Development Bank (ADB), the European Training Foundation, the ILO, the OECD, UNESCO and the World Bank.);
- the World Bank Youth Employment Inventory; and
- the World Bank studies in which VET data are collected and analysed, aimed at supporting the implementation of VET development initiatives.

It may be worthwhile for researchers who are not familiar with this wider context of international VET development cooperation to become acquainted with it, and to align their research to the state of play in international VET.

Conclusion

The development of VET internationally and strengthening VET research cooperation are important aspirations for positioning VET and VET research higher on the ladder of esteem in education and educational research, as perceived by researchers and the public at large. This article presented and critically discussed the IBBF funding initiative for research on international VET development cooperation in the light of international VET research themes. The IBBF initiative to create space for international VET research cooperation should be applauded, because it will contribute significantly to augmenting the esteem of researchers in this field.

In international research cooperation towards the development of VET, it is important to pursue a balanced approach by taking the diverse context-specific practical, political, administrative and scientific factors into account. These factors all play a role at the national, regional and local levels. Too much pragmatism or too great an emphasis on scientific specialisation that operates in isolation should be avoided. The respectful cooperation of all stakeholders is imperative, which is particularly important in projects that combine researchers with a long-term perspective and teachers and managers with shorter-term perspectives. Most research that will be conducted with the support of the IBBF will ultimately aim to raise the quality of teaching and learning in VET. Important questions to be raised, therefore, are what meaning the different stakeholders will attach to this goal, and how they believe their objective can best be achieved (Fullan, 2016). If this question is not adequately answered, the risk is that both the intended purpose of the research and the related educational change will not be realised.

Finally, the envisaged VET research scenario is one in which there is international research cooperation that will strengthen the international VET research community through continuous

networking, and where both inter-disciplinary and intercultural learning and development are crucial. However, a close watch needs to be maintained on the ultimate goal of VET science and research – the continuous improvement of practice – which in the end should contribute to an increase in the quality of learning processes and to improved results.

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