

Vocational education in Waldorf-contexts – a developmental path of the Waldorf curriculum

Ruhi Tyson

Waldorf University College & Department of Education, Stockholm University

ABSTRACT. The Waldorf curriculum has seen various developments over the decades one being in the field of vocational education. Most of this has happened in Germany and Switzerland and although much of it has been discussed in writing little is available in English and there is an absence of a complete review where the various initiatives are compared. The main purpose of this article is to review the literature on the topic as well as the practice in the field and these two elements make up the two major portions of the article. The result of this is at least threefold. First, it provides an orientation on the topic making further research and the development of practice easier. Second, it provides a good example of the flexibility of the Waldorf curriculum and access to some of the most extensive work done in developing aspects of it further. Third, it expands on the already established understanding of what the practical (craft) subjects contribute in the Waldorf context, creating a deeper concept of practical Bildung and opening it to a non-German speaking audience.

Keywords: Curriculum; Steiner/Waldorf education; Vocational education; Social development; Bildung

Introduction

Within the German-speaking Steiner- or Waldorf-education (henceforth Waldorf) movement there has been significant developments after WWII in which vocational education or elements of it have been integrated into upper secondary school. The most well-known of these is the Hibernia school (founded by Klaus Fintelmann) which grew out of the apprenticeship-training at the Hibernia chemistry works in the 1950s (Rist & Schneider, 1977 [reprinted 1990]/1979). Other major developments were made at the Waldorf schools in Kassel, Nürnberg and Gröbenzell and the past 20 years have seen further development. Erhard Fucke (in connection to Kassel) and Michael Brater (together with associates) have also been responsible for extensive theoretical and empirical writing on the topic (Brater & Büchele, 1985; Brater et al. 2011, 1988, 1987, 1986, 1985; Brater & Wagner, 2011; Fucke 1996, 1981, 1977, 1976). However, apart from a Unesco study of the Hibernia school (Rist & Schneider 1979), none of this, as well as other, writing is available in English even though, at least quantitatively, this seems to be the most significant development and change of the original Waldorf curriculum that has occurred in Germany and Switzerland.

The majority of these initiatives have been undertaken as part of a striving to expand the concept and enactment of practical Bildung. The concept of Bildung has a long and varied history reaching back to antiquity. In the English-speaking world the closest educational tradition, that also draws on many shared roots, is that of liberal education. From the start both Bildung and liberal education have often been thought of in contrast with vocational education, the former understood as an education for autonomy, understanding and wisdom and the latter as education characterized by instrumentality and narrowness

(eg. in the philosophy of Plato and Humboldt, see Tyson, 2015, p. 25). However, at least since the Swiss educational reformer Heinrich Pestalozzi (1746-1827) there have been some counters to this view of Bildung. Pestalozzi became known for emphasizing the need to educate not just the “head” but also the “heart and hand”. Looking even further back, the monastic tradition of “ora et labora” (work and prayer), can also be considered a precursor to more contemporary ideas of practical Bildung. Steiner was one of several educational reformers in Germany (others were eg. Georg Kerschensteiner and Hugo Gaudig, see Tyson, 2015, pp. 25-31 for a brief discussion) who at the beginning of the 20th century argued for an expanded idea of Bildung and a curriculum where practical (craft) subjects were given extended room both for themselves and integrated into other subjects. It is, for the most part, this element of the Waldorf curriculum that has been developed further in theory and practice within the mentioned initiatives.

The main purpose of this article is to review the literature on the topic as well as the practice in the field of integrating vocational education and training (VET) into the Waldorf curriculum in order to give an international audience an up to date and comprehensive overview. The value of this is at least threefold. First, it provides an orientation on the topic making further research and the development of practice easier. Second, it provides a good example of the flexibility of the Waldorf curriculum and access to some of the most extensive work done in developing aspects of it further. This, in turn, counterbalances any notion that there is one singular curriculum something that is equally important for practitioners and researchers to be aware of (this is more generally argued in Tyson forthcoming). Third, it expands on the already established understanding of what the practical (craft) subjects contribute in the Waldorf context, creating a deeper concept of practical Bildung and opening it to a non-German speaking audience.

Following this introduction, a short comparison of how VET is structured in various countries at the upper secondary level (approximately grades 9/10-12 in the Waldorf curriculum) is provided as context for the different initiatives described. After this, brief outlines of the various initiatives will be given, including the above-mentioned and several others. Thereafter a review of the theoretical literature as well as empirical research relating to VET and Waldorf education will make out the main portion of the article. It will cover Fucke’s writing on practical Bildung as well as Fintelmann’s (1992, 1990, 1985), Brater’s and others divided into sections on theory, descriptions of practice and empirical research. Finally, the article will conclude with a discussion on the relevance of these developments for the international Waldorf school movement and for researchers engaging in studies of the Waldorf curriculum.

National differences in organizing vocational education and training

To understand the development of VET as part of the Waldorf curriculum it helps to have a rough outline of the differences between VET-systems in different countries. Few aspects of education differ as widely as the way in which VET is organized nationally. This, in turn, is connected to the way in which labor-markets and certification systems are organized.

To begin with, vocational education and training normally refers to vocational education that is non-academic. Academic vocational education, for instance in medicine or jurisprudence, is generally not considered part of a nation’s VET. This is reflected in many countries’ upper secondary school systems which tend to sort into academic preparation tracks and vocational education tracks. It is also tied to if VET is mainly school-based or mainly workplace-based. In Sweden, for example, upper secondary education (beginning after 9 years of compulsory school) is presently separated into a few tracks (so-called programs) that prepare for academic studies and a larger number that focus on vocational education. Historically, Swedish VET has been largely school-based with a limited amount of time spent doing practicums at workplaces. Similarly, Germany also has a track preparing for academic studies through the Abitur and further ones preparing for the so-called Fachhochschule as well as other institutions that are not universities but provide advanced technical and other vocational training. The most common VET in Germany is apprenticeship-based and although it is common for students to complete 10th grade and receive a so-called Hauptschulabschluss and then to go into an apprenticeship it is not uncommon to find students with higher degrees such as the Abitur

take on an apprenticeship after finishing 12th grade. Apprentices normally spend 4 days a week learning at a firm with 1 day in vocational school.

The difference between Germany and Sweden represent outliers on a spectrum where variations between and in countries are plentiful. Connected to this are also the above-mentioned national certification systems, part of how labor markets are regulated. Again, Germany is comparatively regulated where an apprenticeship certificate is required to work in many vocations and a master's certificate in order to run a business. Sweden together with most of the English-speaking countries are relatively unregulated when it comes to who may work in a vocation. One doesn't need a carpenter's certificate to work as a carpenter for example. On the other hand, Sweden and Germany share strongly regulated labor markets in other regards whereas Britain and the US have labor markets that are generally deregulated (see further in eg. Buttler et al. 1995; Hall & Soskice, 2001; Thelen, 2004).

This brief review is meant to clarify how much VET systems differ in countries, something that in turn impacts how VET can be integrated into the Waldorf curriculum. As an example of this, a VET track in a Swedish Waldorf school (the only one thus far) is included below. Furthermore, from the above outline, the focus on apprenticeships at the Hibernia school and the Waldorf schools in Kassel and Nürnberg can be assumed to be less relevant in countries where apprenticeships are a more marginal part of VET and where the labor-market is less regulated so that it becomes less important to have a certification. This, however, should not lead one to immediately dismiss these schools and their contributions as irrelevant to an international audience. Much of their work on theory and practice relating to practical Bildung remains highly relevant even outside of an apprenticeship-context. Consider also that the three schools mentioned above have their apprentice-workshops integrated into the school so that they are less typical of the average German apprenticeship-environment and in many ways more akin to Swedish and other more school-based VET systems. In effect, one needs to separate the different national certification systems from the way that these schools have organized and structured VET. It is the latter issue that is most interesting from an educational point of view (certification is more of a political matter with consequences for how education is organized).

Finally, it is important to note that the discussion regarding vocational Bildung is not limited to Waldorf contexts in Germany but stands in a wider context of VET philosophy and research. The initiatives and publications referenced below therefore appear more unique than they are in practice (see eg. Dederling, 1996 and Meyer-Dohm & Schneider, 1991 for publications that are more generally oriented in the field of VET but that advance similar arguments to those considered here and where the Waldorf-specific innovations are mentioned or discussed).

Survey of the different initiatives

This survey is first presented as an outline and then the various initiatives are discussed individually. The survey is based on publications covering the topic from a recent conference in 2018, *Lernend arbeiten – arbeitend Lernen*, at the Hibernia school in cooperation with the Alanus University and a similar publication from a conference in 1998 (Erziehungskunst 1998), as well as personal visits to the Hibernia school, the Waldorf school in Kassel, the Regionale Oberstufe Jurasüdfuss and Järna Naturbruksgymnasium. It is limited to initiatives at the upper secondary level (normally classes 9/10-12 in the Waldorf curriculum) although there are some publications that also deal with adult VET from a Waldorf/anthroposophical perspective (cf. eg. Brater & Bockemühl, 1988; Brater & Wagner, 2011; Brater et al., 2011). There are also some publications dealing with the incorporation of elements from the Waldorf curriculum in apprenticeship-training at firms (Brater et al. 1987, 1986, 1985) that I will mention briefly in the section covering the literature.

Name	Founded	Main characteristic
Hiberniaschule	1952-56 Fintelmann begins working with the Hibernia factory apprentices. School founded in 1957.	Integrated apprenticeship training in upper secondary school
Freie Waldorfschule Kassel	1930 (VET from 1969)	Apprenticeship training in upper secondary school
Freie Waldorfschule Nürnberg	1946 (VET from 1954)	Apprenticeship training in upper secondary school
Freie Waldorfschule Gröbenzell	1981 (cooperation since late 80s or early 90s)	Cooperation with craft workshops
Emil Molt Akademie Berlin	2008	Vocational school (Fachoberschule, Berufsfachschule, Fachschule)
Waldorf Berufskolleg (several instances)	After 2000	Vocational school (Fachoberschule)
Rudolf Steiner Schule Nordheide	1984	Vocational practica in 11 th and 12 th grade
Rudolf Steiner Schule München-Schwabing	1947 (workshop since 2016)	Repair-workshop

VET initiatives outside of Germany (This cannot be regarded as a systematic survey but is limited to a few examples)

Regionale Oberstufe Jurasüdfuss (ROJ), Switzerland	1992 (closed in 2017)	Extended workplace-based education
Järna Naturbruksgymnasium, Sweden	1999	Agricultural VET track

The Hibernia school remains the most well-documented and thorough integration of vocational education in the Waldorf curriculum. It is also the only one with some documentation in English, in particular a Unesco study from 1979 (Rist & Schneider, there is also a brief discussion in Tyson forthcoming) which is largely a translation of a German text (Rist & Schneider, 1977). Given this, I will keep my discussion comparatively short.

The school began as an apprentice training at the Hibernia chemistry works in 1952. Klaus Fintelmann was made responsible for the general education of the apprentices and his introduction of elements from the Waldorf curriculum and methodology proved so successful that it was possible to reduce the time needed for the practical part of the training. The school was amended to this apprentice training and the vocations were expanded to include carpenter, toolmaker, electrician, tailor and child care. The fundamental change to the standard Waldorf curriculum (apart from the apprenticeships) was a stronger emphasis on the crafts in grades 7-9 where the basics of all the vocations taught were provided. This part of the curriculum, although not strictly vocational but rather a kind of practical general Bildung has been highly influential on other Waldorf schools even if they have not proceeded to actual VET or have done it differently (for example the Waldorf school in Nordheide). This general practical education culminates in 10th grade where a more extensive introduction to each craft is given so that when the students then begin specializing in 11th grade, they are considered finished with the first apprenticeship year in all of the crafts. Thus, not only do the students learn a vocation, they also achieve the basic training of all the trades offered. They then finish 12th grade with a journeyman's test in order to earn their journeyman's certificate. For those who so wish it is

then possible to stay for two more years at the Hibernia Kolleg where it is possible to complete the Abitur. The basic principle is that each student leaves school with a vocational certificate while still partaking in most elements of the standard Waldorf curriculum (something that does lead to relatively long days in upper secondary school). As such it remains one of the most far-reaching changes to the curriculum. I will return to some of the theoretical arguments made in the publications connected to the Hibernia school in the next section. For those interested in the detailed curriculum and set-up I refer to the Unesco study by Rist & Schneider (1979) which is freely available as a pdf at the Unesco website.

The Waldorf schools in Kassel and Nürnberg both include apprentice training as part of their curriculum but it is not obligatory. Instead some students take the apprenticeship path and some the path to the Abitur and they study the core parts of the Waldorf curriculum together in the mornings. In some cases where a student has shown the capacity, it has been possible to do both at the same time but this remains the exception given the workload it represents. In Kassel this began in 1969, in Nürnberg it began in 1954. In Kassel the central person responsible for instituting this was Erhard Fucke who, together with Fintelmann at the Hibernia school and Michael Brater at the GAB in Munich have written most extensively on the topic of VET as an expanded part of general education or practical Bildung.

All of the schools mentioned thus far are characterized by having their workshops integrated into the school. The strength in this is that their productive capacity can contribute to the school. For example, the students at the Hibernia-workshops contributed extensively to the school as it was built, installing all its electrical wiring and more. However, it has not been easy to fully unfold this potential because the worlds of education and production are relatively far apart. Both teachers and workshop-masters have had difficulties fully understanding the cultures and conceptual spaces of the other (at least this was the impression I received from several conversations at both the Hibernia school and the school in Kassel). The main issues seem to be two. First that it is not always easy for schools to coexist with firms and to find ways to regulate this coexistence. Second that it is simply very expensive to build a workshop and buy the machines and materials.

The Waldorf school in Gröbenzell has developed a different approach than the previous ones (see Brater & Munz, 1996, for an extensive presentation and evaluation). Instead of having its own workshops it has a network of craft-firms that it cooperates with, most of which are located close to the school. Instead of integrating the world of work into the school the aim has been to place some of the schooling in the actual world of work. In many ways this is much closer to how traditional apprenticeships work. Originally it was structured so that students in grades 9 & 10 would visit and work in a craft workshop one full day per week. Today this has been reduced so that it is only the students in grade 9 (according to their website, accessed 2019-08-06). In its original form the students in grade 9, distributed into groups of approximately 6 students in each, would move to a new workshop every 5 weeks, thereby achieving a full week of work in each. The workshops have shifted over time, today they are: smithy, bakery, carpentry, bookbinding, handsetting (for printing), gardening, graphic design and leather working. In 10th grade the time in each workshop was doubled so that the shift to a new one occurred every 10 weeks. Thus in 9th grade, the students experienced most of the workshops and their work-contexts, in 10th grade this was more specialized. This way of organizing the curriculum is in many ways similar to the way the Hibernia-school organizes it in grades 7-10, achieving a kind of basic general practical Bildung. It also highlights a complicated distinction, that between practical and vocational Bildung. Practical Bildung can be understood as a general education in the field of manual work-processes and the tools and materials that these require. Vocational Bildung is connected to the kinds of experience made possible through the development of the level of skill and competence needed to become proficient in a profession, normally something that requires about three years of practice and education. It is important not to confuse these two even though many of the capabilities, competencies and similar characteristics that can develop overlap between them. This is the reason the Hibernia school occupies such a unique position in this context, it is, to my knowledge, the institution where *both* practical and vocational Bildung have been most extensively integrated into the Waldorf curriculum.

The Waldorf school in Nordheide appears as a variation of Hibernia and Gröbenzell (see Erziehungskunst, 1998, p. 842-849 for a brief description). In grades 7-10 they have an expanded practical curriculum that is similar to, and inspired by, Hibernia. In grade 10 and then again in grade 11 the students spend 1+3x4 full

weeks working in one of the affiliated workshop-firms. Thus at the end of 11th grade a student has worked 12 weeks in a firm and thus come to learn the basics of the chosen trade. Originally, this repeated again in 12th grade for 3x4 weeks (Erziehungskunst, 1998, p. 845f.) but this seems to have been discontinued according to the current webpage of the school (accessed 2019-08-06).

The Emil Molt Academy and the various Waldorf Berufskolleg-schools represent a comparatively new development in which Waldorf schools have branched out into the field of vocational schools (briefly described in Alanus Hochschule 2017, extensively in Schneider & Enderle, 2012). These are upper secondary schools in Germany that provide vocational education through a different route than apprenticeships generally ending in a vocational qualification and one of the various qualifications for further study, mostly the Fachhochschulreife (Fachhochschule is often translated as senior technical college). Since Germany has a wide variety of upper secondary vocational school forms, the Berufskolleg even differs in part between various states (Bundesländer), it is not possible to give a brief overview of the different initiatives. Also, given the significant differences in curricula and structure between countries when it comes to school-based VET the specific forms of the different initiatives are perhaps not as significant as the general model. Common to all is that the state curriculum of a Berufskolleg is enriched with elements from the Waldorf curriculum (the state curricula are flexible enough to allow this). The professional fields that are offered differ widely, from the technical through the social and the practical. The Berufskolleg runs parallel to the final two years of Abitur studies and encompasses one year of practicum in a relevant firm and one year of school-based education which includes both general subjects and vocational subjects.

The Waldorf school in München-Schwabingen has recently, 2016, opened a repair-workshop (actually distributed across several spaces like the physics-rooms for electronic repairs and the wood-workshop for corresponding repairs) as a new and innovative form of general practical Bildung (described in Kraus et al., 2018). It has been made part of the curriculum from grade 5 through grade 11 (obligatory from grade 9, voluntary before that). The basis is a workshop where students (at 6 workstations working in pairs) repair various objects that people have brought there. They are generally responsible for the whole process, from receiving the object from a client through diagnosing and then repairing. The aim of this is to maximize the explorative aspect of the learning process as well as the need to drive it oneself as well as developing a creative capacity to deal with unexpected forms of repair. The repairs are done without requiring any remuneration from those bringing their things to the workshop and when necessary the students can ask for help from one of the reparation-coaches who work there on an honorary capacity (ie. unsalaried). Although it is not part of VET I think it is a relevant initiative to include here because of its unique focus, where all the previous ones concentrate on the production of something new. Especially, and this is explicitly mentioned in Kraus et al., given our need to be more mindful of the environmental impact of our production and consumption.

The Regionale Oberstufe Jura-Südfuß (ROJ) was a Swiss upper secondary school for grades 11 and 12 that combined resources from three of the Waldorf schools in the area (Biel, Langenthal and Solothurn). Their students were given an extensive workplace learning curriculum where they spent two days a week at a workplace and three in the school (see Brater 2000, for an extensive presentation and evaluation). The school had a wide network of participating firms that continuously grew guided by the interests of the students. Agreements with the firms were made for 6 months at a time so that students who wanted to could change to a different one once per year. Those who remained with the same firm throughout, progressed far towards a completed apprenticeship in those cases where the vocation in question was connected to one. Generally, the students were expected to find the firm they wanted to practice at themselves, however, the school also had a teacher who was employed full-time to assist students with these matters. The ROJ is perhaps the Waldorf school in which the most radical form of workplace-based learning as part of general education has been realized. These are not “pedagogical firms”, nor are they limited to crafts and industrial crafts as the case is to a large degree with the previously described initiatives. Instead the form of this workplace-based learning is entirely up to the firm and the way the firm is organized, the only condition is that the students are treated as coworkers and are able to participate in the daily work of the firm.

Järna Naturbruksgymnasium, founded by Heiner Lohrmann, is based on the agricultural vocational track in the Swedish state curriculum but integrates large elements of the Waldorf curriculum as well as organic

and biodynamic practices. Its location in Järna, the center of the Swedish anthroposophical movement and a rural community with several organic and biodynamic farms makes this possible. This form of organization makes it similar to the previously described Berufskolleg schools.

Review of literature and research

The review is based on 14 years of continuous collection and cross-referencing where Frielingsdorf's (2012) recent review of Waldorf education in scientific publications, Bauer & Schneider's (2006) general look at Waldorf education in dialogue with science and finally the conference proceedings from 1998 and 2018 (Erziehungskunst and Alanus Hochschule, respectively) have been especially helpful. Frielingsdorf also has references to a number of journal articles that have not been included here but which deal with these issues. Although Bauer & Schneider are not explicitly focused on the vocational it is one of the few recent volumes dealing with Waldorf education more generally that goes beyond mentioning this aspect. In particular Schneider's contributions (not surprisingly considering his long association with the Hibernia school) delve into this from a general perspective. He goes as far as to argue that the Waldorf movement has developed in a one-sided way, prioritizing the cognitive-artistic over the practical and technical to the detriment not only of a holistic Bildung for the students but also in conflict with its roots in the wider movement for social threefolding and societal transformation (Bauer & Schneider, 2006, pp. 112-116). In doing this he echoes similar, earlier, critiques by both Fintelmann and Fucke.

The literature on the subject of VET in Waldorf education can be categorized in three overlapping groups: general theoretical perspectives, descriptions and evaluations of concrete initiatives and biographical research relating to initiatives.

The first category consists of several works by Erhard Fucke in Kassel (Fucke, 1996, 1981, 1977, 1976), Michael Brater and associates in Munich (Brater & Munz, 1994; Brater et al., 1988) and Klaus Fintelmann and associates in the Ruhr area (Alanus Hochschule 2018; Fintelmann, 1992, 1990; Edding et al., 1985; Rist & Schneider, 1977). The second category consists of books and pamphlets describing (and sometimes evaluating) the Hibernia school, the Waldorf school in Gröbenzell, the repair workshops at the Rudolf Steiner School in München-Schwabingen, the Emil Molt academy and Waldorf Berufskolleg, some initiatives that incorporated elements of the Waldorf curriculum at Firms as well as the ROJ (Alanus University 2016; Brater 2000; Brater & Munz, 1996; Brater et al. 1987, 1986, 1985; Fintelmann 1990, 1968; Kraus et al., 2018; Rist & Schneider 1977; Rudolf Steiner school Nürnberg 2004; Schneider & Enderle, 2012). In the third category we find several studies, both scientific and popular, of the biographical trajectories of former vocational students (Gessler, 1988; Kröger & Traue, 2016; Stöckli & Wepfer, 1997). Although this category remains small, the implications of its research are foundational for much of the theoretical arguments advanced. A fourth and fifth category deserve mention although they are not a direct part of this survey. One covers the topic of various disabilities and practical Bildung (cf. eg. Brater, 1988; Brater & Büchele, 1985; Dackweiler, 1996) and the other deals with the expansion of vocational education to include various artistic practices (Brater et al., 2011; Brater & Wagner, 2011; Schmalenbach, 2011).

To reiterate, these categories are far from watertight and most publications contain at least elements of all of them, particularly the first two. However, the groupings at least give a rough indication of where the main emphasis of a publication can be found.

Theoretical perspectives on practical and vocational education/Bildung

Klaus Fintelmann and those associated with him and the Hibernia school have produced an extensive theoretical literature relating to vocational Bildung (Alanus Hochschule, 2018; Fintelmann, 1992, 1990; Edding et al., 1985; Rist & Schneider, 1977). Fintelmann's fundamental ideal was that vocational education contains an important potential for Bildung. In this he included several levels of perspective (Fintelmann, 1990, Rist & Schneider, 1977):

1. That training of manual skills is a general education of the will (where arts, humanities and sciences tend to involve a general cognitive and emotional education).
2. That (manual or crafts) vocational education for all students is a path of overcoming the social division of labor.
3. That vocational education is a way to introduce a biographical relationship towards work and of supporting both the transition to work after school and the capacity for self-directed lifelong learning.

These perspectives are the main focus of the theoretically oriented literature. Fintelmann's book *Hibernia: Modell einer anderen Schule* (1990, Hibernia: Model of a different school) is largely aimed at discussing these questions using the Hibernia school as an example. In a short text from 1992, *Die Mission der Arbeit im Prozess der Menschwerdung* (The mission of work in the process of becoming human) Fintelmann provides one of his most concise and striking arguments regarding the second and third points above writing (1992, p. 18ff.):¹

[Consider] how a vocational path could look that was biographically founded and that reached its destination, in some cases, with the profession of doctor. I am convinced - this is more thoroughly explained in my pedagogical writings -, that every young person after his or her 18th year to begin with should enter a practical vocational activity. In the medical field this could mean working as a care-taker; in any case it should be an activity that involves an immediate contact with the suffering individual who is moving through the process of illness. It needs to be more than just a brief "practicum", a real vocational activity that deeply involves the individual in the vocational field. During this time the person in case is still carrying out the immediate care of the patient and learns through constant daily experience. A further level could then be to become therapeutically active oneself - in the anthroposophical field this includes the multitude of art-therapies as well as the different physical therapies (massage, Kneipp-treatment, etc.) - and finally to take a leading role in shaping the care of a patient. When these two levels of vocational activity are to be introduced needs to be considered against the biography of the individual as well as the possibilities at hand socially. A third level of vocational activity would then be to move into being an actual doctor working with the diagnosing of individual patients and the prescription of therapy. This means taking a step back from being directly active in curative work. If the care-taker often remains with the patient around the clock and thereby is fully exposed to the workings of a particular therapy and the possible curative crisis that the therapy causes the doctor in charge of diagnosing needs the care-takers reports of this for his or her judgement. I know from my friends working as doctors how often they speak gratefully about how their colleagues working in immediate therapy, ie. working as a masseur or curative eurhythmist, provide experiences that further their diagnosis substantially. Such a diagnostic conversation between those working in care, in therapy and the doctors is almost impossible today. It would be a different picture if one were to take the path I have described here before becoming a doctor. Naturally one would then also be differently, more extensively, prepared for the activities at the various levels mentioned than is usually the case today. We could say something similar concerning the path that a person should travel before becoming a teacher so that he or she doesn't speak to the children about a world that he or she only knows about through reading...

...What today hangs above the working individual like a Damocles sword - perhaps being forced to change workplace, the threat of being without a paying job, to need to re-educate oneself - is the caricature of an important part of today's vocational life: *that working and learning are life-long activities that remain in a constant living interchange with each other* and that precisely because of this, the biographical development of the individual is given an important stamp or impression.

Fintelmann, in effect, argues that any work leading and organizing a field of activity should be preceded by working more immediately in the field and experiencing the ways in which leadership and organization influence how the work can proceed.

Rist & Schneider (1977, translated to English 1979 and available as a pdf-file from Unesco's website) is a comprehensive publication that covers the historical development and idea of the Hibernia school together with some evaluative studies and theoretical considerations relating to the curriculum developed. Edding et al., (1985) is a collection of scientific essays covering the theoretical ideas that have inspired the Hibernia

1. Unless otherwise noted all translations from the German are mine.

curriculum as well as discussions regarding practice and some wider views on the Hibernia curriculum in the context of education and work. Finally, the recent congress *Lernend arbeiten – arbeitend lernen* that took place at the Hibernia school in cooperation with the Alanus University has published the various lectures given (Alanus Hochschule, 2018) which, similar to Edding et al., deal with theory, practice and the wider context of the Hibernia pedagogy.

One of the central texts in developing the theory of vocational Bildung is *Berufsbildung und Persönlichkeitsentwicklung* (Vocational Bildung and personality-development, Brater et al., 1988). In it a general discussion is pursued regarding vocational education as a form of Bildung, in particular the way it contributes to personal development. It also deals with various education methods that further the development of so-called key qualifications described by Brater et. al. (1988:72), as involving the following in connection with craft-oriented education:

- Reliability, patience, endurance, exactness
- Self-sufficiency, capacity for problem solving, readiness to take responsibility, flexibility, acting out of insight
- Analytical thought, anticipatory skill, planning capacity, mobility of thought
- Awareness, attention, perceptive skill, capacity for overview and concentration and the skill to understand and take into account complex situations
- Transfer capacity, decisiveness, capacity for improvisation, openness to the unforeseen, presence, learning capacity and interest, being able to adapt to new circumstances
- Information readiness, cooperative capacity, social trust, being able to work out of other people's intention, critical capacity and ability to perceive others, ability to make oneself understood.

There is, furthermore, a review of ways in which working and learning in the workshop can be combined with artistic practice. The book ends with a discussion of the pedagogical value in learning from real tasks, ie. workplace-based learning.

Brater & Munz (1994) have also published a book on the topic of the pedagogical value of learning book-keeping. This is not, strictly speaking, a publication on vocational education but book-keeping is an important part of any firm and an extensive discussion from the perspective of Waldorf education is highly relevant. Beyond a general, theoretical and historical consideration it also contains guidelines and suggestions for how to include book-keeping in the Waldorf curriculum and methodological reflections on how to teach it.

Finally, Brater et al. (2011) contains an extensive examination of the ways in which artistic practices can contribute to vocational education as well as vocational practice. The publication does not explicitly deal with matters pertaining to the integration of vocational education in the Waldorf curriculum but instead offers a deep exploration of how the already established artistic practices in the curriculum might be of value to a vocational program.

In the four volumes that Erhard Fucke published on the topic of vocational Bildung (Fucke, 1996, 1981, 1977, 1976) he has attempted to present a general case for practical and vocational (especially crafts) subjects in education. This began in the 70s with two volumes arguing for the value of integrating vocational and general Bildung, *Berufliche und allgemeine Bildung in der Sekundarstufe II* (Vocational and general Bildung at the upper secondary level, 1976), and *Mehr Chancen durch Mehrfach-qualifikationen* (More chances with integrated qualifications, 1977). The former is a description of the integration as modelled by the Waldorf school in Kassel after its first seven years, presented as conceptual framework with some discussions of the strengths and issues connected to it. The main argument is that the cognitively oriented education of today focuses too one-sidedly on emancipation and that we need a parallel focus on developing the capacity to identify with, or participate in, society and nature. Such identification/participation can be supported through artistic and practical subjects. This is similar to the philosophical argument of Owen Barfield

(1988) who presents a coherent argument that our culture, especially with the enlightenment, has achieved a degree of non-participation for the individual that sets us apart from earlier cultures characterized by a high degree of participation (identification) in the world and its processes. Non-participation is necessary for emancipation but pushed far enough brings estrangement, isolation and the inability to experience the other. What Barfield calls for on the philosophical level, a new participation nourished by the fruits of the previous (and ongoing) experiences of non-participation is here considered from a practical, pedagogical point of view. In the latter book Fucke, using empirical studies, widens his scope to outline several fields of vocational activity and their biographical impact, discussing the problems with strictly academic vocational education and the value that cross-vocational education brings. The argument here is similar to that made from the studies of the biographical trajectories of Hibernia students and I will return to the issue in discussing that literature. In 1981 he published one of the central works in this field, *Lernziel: Handeln können. Erfahrungen und Überlegungen zu einem erweiterten Bildungskonzept* (Educational aim: learning to do or to act. Experiences and reflections regarding an expanded conception of Bildung). In this and the equally important *Der Bildungswert praktischer Arbeit. Gedanken zu einer Lebensschule* (The Bildung-value of practical work. Thoughts regarding a life-oriented school, 1996) Fucke aims at a comprehensive discussion of what practical work, especially in the crafts, can achieve pedagogically. There is little written elsewhere that isn't covered in these publications. The main focus of the former, again based on the example of the Waldorf school in Kassel, is to discuss the various ways that crafts in general, and as part of a vocational training, can contribute to the affective and volitional (feeling and will) education of students. In effect, Fucke makes an extensive argument that cognitive or intellectual education has a very limited influence on our emotional and volitional development and that the education of these is best done via the medium of crafts. In this he presents a pedagogical model for philosophical issues that date back at least to Aristotle (2009) who differentiated between character-traits and the intellectual ability to conceive of how to act wisely based on these traits. A person who is not generous can know infinitely much about generosity on an intellectual level but still hardly act generously. To develop the actual affective and volitional disposition to be generous is only possible through actually practicing generosity (cf. Tyson, 2015 for a more extensive discussion of the Aristotelian argument). Finally, the latter publication presents a full discussion of the various ways that practical work contributes to a full education. As an example, Fucke writes (1996, p. 73):

For the disposition of a young person, the correction of error through the work itself contributes strongly to his or her well-being. Correction by adults is far less effective and is sometimes even rejected outright. The aversion against “foreign” judgements arises out of the striving in puberty for autonomy. This is to be welcomed but the results should not end in complete arbitrariness. ... Thought often becomes personalized instead of objectified in passive on-looker classes/teaching. ... The encounter with a product of one's work moves the formation of judgement in the direction of objectivity. The thing itself speaks and not the (crafts-)master (teacher).

Its overarching structure discusses practical work as a path to self-education, what making a product can mean pedagogically, the rhythm between the poles of thinking and acting (and the general lack of education relating to the will) as practical considerations for the creation of schools that integrate more practical and vocational elements in their curriculum.

From the theoretical literature discussed above, the publications by Brater et al. (1988), Fintelmann (1990, 1992) and Fucke (1981, 1996) can be considered the most important in advancing a theory of practical and vocational Bildung. One might also add the dissertation of Wilfried Gabriel (1996) which develops an extensive theoretical foundation for the relationship between Bildung, Waldorf education and vocational Bildung. Finally, the proceedings from the 1998 conference *Was hat Schule mit dem Leben zu tun?* (Erziehungskunst, 1998) contain brief outlines of most VET initiatives as well as essays by both Fucke and Fintelmann introducing their views on vocational/practical Bildung. A similar special issue of *Erziehungskunst* was published in connection with the above-mentioned conference *Arbeitend lernen – lernend arbeiten* containing several articles regarding this thematic (Erziehungskunst, 2018).

Literature discussing and outlining practice

An important consideration to bear in mind when it comes to the practice-aspects are the previously mentioned particularities of the German educational system especially as it relates to vocational education. Thus the conception of the Hibernia school is so closely tied to the particular regulations in place in the state of Nordrhein-Westfalen during the 1950s and 60s when it developed, that a major reason there are no other schools that have copied its curriculum outright is not a lack of interest but because regulations made it practically impossible (at least this is what I was told repeatedly in conversation with teachers when visiting schools in Germany). In an international context it can be expected that significant elements of the Hibernia curriculum would need to be modified in order to fit within the regulatory structures of a different country. The case is similar when it comes to the Waldorf-Berufskolleg which is a particular form of VET institution that may not have any immediate parallel outside of Germany. The importance of these more or less detailed descriptions of practice for an international audience (disregarding their value from a research perspective) lies less then, in the potential to simply copy their curricula and more in how they provide a Waldorf educational perspective on vocational education and how this can inspire nationally relevant initiatives.

For all of these initiatives (apart from the now defunct ROJ) there are also web-resources available such as the websites of the various schools where brief information about their approaches, structures etc. can be accessed. I have not included this below.

The two books most directly concerned with outlining the concrete curriculum and practice of the Hibernia school are the previously mentioned Rist & Schneider (1977) and an earlier publication by Fintelmann *Die Hiberniaschule als Modell einer Gesamtschule des beruflichen Bildungsweges* (1968, The Hibernia school as a model for a comprehensive school for vocational education). Both contain outlines of the curriculum for each grade.

As previously noted, Fucke (1976, 1981) contains discussions on the structures of the Waldorf school in Kassel. The Waldorf school in Nürnberg has, to my knowledge never been more extensively documented (although it can be assumed that there are manuscript publications and other more internal texts that I am not aware of) only a pamphlet celebrating the carpentry-workshop's 50th year (Rudolf Steiner-Schule Nürnberg, 2004).

Michael Brater and associates have been involved in several descriptions and evaluations of practical initiatives. Brater & Munz (1996) are behind an extensive text on the Waldorf school in Gröbenzell and its cooperation with craft workshops. Through a close examination of the activities and learning-affordances of the workshops they cover both the practice of Gröbenzell as well as the theoretical implications, to a degree that makes the publication equally relevant as a theoretical one together with those in the above category. The Regionale Oberstufe Jurasüdfuss has also been described and evaluated by Brater (2000). There are three older publications from Brater et al. (1987, 1986, 1985) that are not directly concerned with vocational elements integrated into the Waldorf curriculum but rather with the artistic elements of the Waldorf curriculum and their contributions to firm-run VET. Brater et al. (1985) is a brief study and evaluation of artistic practice as part of the youth-support program (Jugendförderungsprogramm) of the Ford-plants in Köln. Brater et al. (1986) is a similar text but here it is the firm Voith in Heidenheim that runs the program. Finally, Brater et al. (1987) is a more extensive description and evaluation of the value of integrating artistic practices in the apprentice training of the firm *Baugesellschaft für elektrische Anlagen* in Düsseldorf.

Finally, Kraus et al. (2018) are responsible for the “praxis-guide” to the repair-workshops of Rudolf-Steiner-school in München-Schwabingen covering the idea, documenting experiences and giving suggestions to those interested in establishing something similar.

Biographical studies

Although some of the above-mentioned literature is evaluative most of it presents more principled arguments or remains largely descriptive of practices. The main exception is the Hibernia school were some more

systematic evaluative research has been done based on the biographical trajectories of former students. The most in-depth published work is Gessler (1988) which contains a number of extensive life-history interviews as well as an evaluation of the class of 1983 and their experiences of attending the school. Gessler mentions a companion study by Hüffell (1983) that unfortunately remains an unpublished manuscript. A few biographical studies are also included in Rist & Schneider (1979) and Tyson (2015) includes a translation of the main parts of one of the biographies presented in Gessler. A less scientific biography study was published in 2016 for the 50th anniversary of the Hibernia Kolleg (Kröger & Traue, 2016). Currently a further scientific study of former Hibernia students is underway with some preliminary findings having been reported (Peters in Alanus Hochschule, 2018). Stöckli & Wepfer (1997) have published a book presenting experiences of students with the curriculum at the ROJ. Finally, Brater (1998) has published a brief text discussing vocations and their biographical impact. Since it is not empirical one could just as well place it in the first category but it deals with much the same issues that are dealt with empirically in the previously mentioned publications.

Conclusions

Compared to the number of schools involved, the amount of writing and research on the topic of practical Bildung and VET as part of the Waldorf curriculum is significant. This hints at the impact that some of these initiatives and those involved in them have had, not just inside of the Waldorf educational movement but also outside of it.

Regarding practical Bildung there is a wealth of theory and practice to be gleaned from the outlined publications and institutions that can inform and transform the curriculum not just at the upper secondary level but at least from about 6th grade onwards. A more extensive publication in English on this topic is long overdue. Still, this emphasis on practical Bildung remains part of a general education aiming at affording students a holistic development. The point with integrating actual vocational education (apart from being an extension of practical Bildung) in the Waldorf curriculum is to also afford students a more extended connection to, or capacity for participation in, society. That this is both important and successful is at least suggested by the biographical studies from the Hibernia school. The critique offered by Schneider, Fintelmann and others that the Waldorf educational movement has, at least in part, been unable to fulfil its part in the movement for social threefolding cannot (or should not) be overlooked. However, two further critical viewpoints can be added here in the concluding discussion. First, professor Wolfgang Keim, in Edding et al., writes (1985, p. 272f.):

Here, at the latest, the question must also be raised to which extent the whole human being can be realized solely through educational processes without a fundamental reorganization of the capitalist production and economic systems. The danger cannot be overlooked, that such a purely pedagogical concept [the Hibernia model], where the societal relationships of production and distribution are disregarded, in the final run might contribute to upholding the status quo. However, these relationships of production are in contradiction to the postulated holistic perspective on the human being, as far as they are only meant to serve the accumulation of capital and subordinate all other aims to this single one. Regarding such critical questions one finds, unfortunately, thus far no real answer in the extensive literature about the Hibernia School.

This critique matches that from Tyson (forthcoming) where the main issue is that vocational education too often (and to my knowledge always at the institutions discussed) is organized along conventional lines. The other, and in many ways more intense, form of participatory education is in the field of social development and there is no real reason why vocational education in a Waldorf context could not be organized so that at least part of it was not integrated into normal processes of production but instead went towards social and cultural development. One might argue that the repair workshops in München-Schwabing is an exception here and as such they are laudable, however, consider the productive potential of the workshops at the schools in Kassel and Nürnberg as well as the Hibernia school and the potential capacity for social development starts to emerge. To give just one example discussed more extensively in Tyson (forthcoming), Wilfried Kessler, eurythmy teacher at the Waldorf school in Ulm, Römerstrasse, has, since the early 90s, run a social

development project in a little village in Rumania named Masloc where he and students from the school have been instrumental in the construction of an anthroposophical clinic and other developments. This was done within the scope of the standard curriculum leading to tensions because there is little place for it there other than at the cost of the regular subjects. The situation would be entirely different if a Waldorf school ran a vocational program in construction and made such projects part of the curriculum.

Perhaps one reason that this has not happened is precisely owing to the strength of German VET, its curricula and traditions. It might well be more difficult in practice than a superficial glance suggests, to fit such elements into the apprenticeship training. Perhaps one of the greatest potentials for further development into hybrid VET and social development curricula is in those countries where VET is comparatively unregulated. Consider the possibilities inherent in combining eg. a potter's or weaver's training with basic nursing or some other care-oriented profession. Here the combination of arts, crafts and social work could be realized in a curriculum that not only provided education for vocations that already exist but for ones that are more or less suggested from research and practice but haven't been fully articulated. The point being that Waldorf education has more to offer beyond the integration of VET into the Waldorf curriculum. From anthroposophically inspired work in the fields of care, education, social banking, agriculture, etc. there is a wealth of experience to draw on regarding combinations and developments of vocations and practices. From the field of social and cultural development there is an extensive practice to draw on in order to combine it with VET. This has the potential to contribute to answering the critiques of Keim and Schneider by turning our schools into centers for development and social participation. Perhaps the greatest value of the initiatives and publications discussed here is their contribution to our pedagogical imagination when we strive to conceive of further elaborations and changes to Waldorf education and the Waldorf curriculum.

References

- Alanus Hochschule. (2018). *Lernend arbeiten – arbeitend lernen. Die Bildungsidee der Waldorfschule*. Alfter: Alanus Hochschule.
- Alanus Hochschule. (2017). *Waldorf-Berufskolleg. Pädagogisches Konzept und Grundlagen*. Alfter: Alanus Hochschule.
- Aristotle. (2009). *The Nichomachean Ethics*. Oxford: Oxford University Press.
- Barfield, O. (1988 [1957]). *Saving the appearances. A study in idolatry*. Middletown: Wesleyan University Press.
- Bauer, H. P. & Schneider, P. (Eds.). (2006). *Waldorfpädagogik. Perspektiven eines wissenschaftlichen Dialoges*. Frankfurt am Main: Peter Lang.
- Brater, M. (2000). *Die Regionale Oberstufe Jurasüdfuss. Evaluation im Schuljahr 1998/99*. Eriswil: Förderverein der Regionalen Oberstufe Jurasüdfuss.
- Brater, M. (1998). *Beruf und Biographie*. Esslingen: Gesundheitspflege initiativ.
- Brater, M. (1988). *Eingliederung durch Arbeit*. Wuppertal: Edition Bingenheim.
- Brater, M. & Bockemühl, M. (1988). *Studium und Arbeit. Lernen im vierten Jahrsiebt*. Stuttgart: Verlag Freies Geistesleben.
- Brater, M. & Büchele, U. (1985). *Sozialpädagogische Arbeit im Betrieb*. München: Rainer Hampp.
- Brater, M., Büchele, U. & Englert, M. (1987). *Fachausbildung + Künstlerische Übungen. Ein Weg zur Förderung beruflicher Handlungsfähigkeit*. München: Rainer Hampp.
- Brater, M., Büchele, U., Fucke, E. & Herz, G. (1988). *Berufsbildung und Persönlichkeitsentwicklung*. Stuttgart: Verlag Freies Geistesleben.
- Brater, M., Büchele, U. & Reuter, M. (1985). *Fachübergreifende qualifizierung durch künstlerische Übungen*. München: Rainer Hampp.
- Brater, M., Elsässer, P., Herz, G. & Herzer, H. (1986). *Brücke zwischen Schule und Beruf. Der Förderlehrgang Voith*. München: Rainer Hampp.
- Brater, M., Freygarten, S., Rahmann, E. & Rainer M. (2011). *Kunst als Handeln – Handeln als Kunst. Was die Arbeitswelt und Berufsbildung von Künstlern lernen können*. München: Bertelsmann.
- Brater, M. & Munz, C. (1996). *Zusammenarbeit von Schule und Handwerk. Chancen und Wirkungen einer Öffnung von Schule für die Arbeitswelt*. Weinheim: Deutscher Studien Verlag.
- Brater, M. & Munz, C. (1994). *Die pädagogische Bedeutung der Buchführung. Überlegungen und Erfahrungen zu ihrem Einsatz in der Waldorfschule*. Stuttgart: Verlag Freies Geistesleben.
- Brater, M. & Wagner, J. (2011). *Künstlerische Aufgabenstellungen in der Erwachsenenbildung*. München: Rainer Hampp.
- Buttler, F., Franz, W., Schettkat, R. & Soskice, D. (Eds.). (1995). *Institutional frameworks and labor market performance. Comparative views on the U.S. and German economies*. London: Routledge.
- Dackweiler, H. (1996). *Gedanken zum Wesen handwerklicher Arbeit*. Stuttgart: Verlag Freies Geistesleben.
- Dederig, H. (Ed.). (1996). *Handbuch zur arbeitsorientierten Bildung*. München: R. Oldenbourg Verlag.
- Edding, F., Mattern, C. & Schneider, P. (Eds.). (1985). *Praktisches Lernen in der Hibernia-Pädagogik*. Stuttgart: Klett-Cotta.
- Erziehungskunst (2018). *Erziehungskunst*, 01/02 2018.
- Erziehungskunst (1998). *Was hat Schule mit dem Leben zu tun?* Downloaded 2019-08-05 from: https://www.erziehungskunst.de/fileadmin/archiv_alt/1998/ez07_08_1998.pdf
- Fintelman, K. J. (1992). *Die Mission der Arbeit im Prozess der Menschwerdung*. Stuttgart: Urachhaus.
- Fintelman, K. J. (1990). *Hibernia: Modell einer anderen Schule*. Stuttgart: Klett-Cotta.

- Fintelman, K. J. (1968). *Die Hiberniaschule als Modell einer Gesamtschule des beruflichen Bildungsweges*. Stuttgart: Verlag Freies Geistesleben.
- Fucke, E. (1996). *Der Bildungswert praktischer Arbeit*. Stuttgart: Verlag Freies Geistesleben.
- Fucke, E. (1981). *Lernziel: Handeln können. Erfahrungen und Überlegungen zu einem erweiterten Bildungskonzept*. Frankfurt: Fischer Verlag.
- Fucke, E. (1977). *Mehr Chancen durch Mehrfach-qualifikationen*. Stuttgart: Ernst Klett Verlag.
- Fucke, E. (1976). *Berufliche und allgemeine Bildung in der Sekundarstufe II*. Stuttgart: Ernst Klett Verlag.
- Gabriel, W. (1996). *Personale Pädagogik in der Informationsgesellschaft – Berufliche Bildung, Selbstbildung und Selbstorganisation in der Pädagogik Rudolf Steiners*. Frankfurt: Peter Lang Verlag.
- Gessler, L. (1988). *Bildungserfolg im Spiegel von Bildungsbiographien*. Frankfurt: Peter Lang Verlag.
- Hall, P. & Soskice, D. (Eds.). (2001). *Varieties of capitalism. The institutional foundations of comparative advantage*. Oxford: Oxford university press.
- Hüffell, A. (1983). *Fürs Leben gelernt. Ehemalige Hiberniaschüler berichten von ihrer Schul- und Lebenserfahrungen*. Unpublished manuscript.
- Keim, W. (1985). Praktisch-berufliches Lernen als Teil der Allgemeinbildung – Eine historisch-systematische Studie. In Edding, F., Mattern, C. & Schneider, P. (Eds.). *Praktisches Lernen in der Hibernia-Pädagogik*. Stuttgart: Klett-Cotta.
- Kraus, W., Munz, C., Escales, E. & Ueblacker, M. (2018). *Reparieren macht Schule. Die Schüler-Reparaturwerkstatt an der Rudolf-Steiner-Schule München-Schwabing*. München: Schüler-Reparaturwerkstatt der Rudolf-Steiner-Schule München-Schwabing.
- Kröger, J. & Traue, T. (2016). *Hibernia-Kolleg 1966-2016. Wie es weiterging – Ehemalige berichten*. No publisher specified.
- Meyer-Dohm, P. & Schneider, P. (Eds.). (1991). *Berufliche Bildung im lernenden Unternehmen. Neue Wege zur beruflichen Qualifizierung*. Stuttgart: Ernst Klett Verlag.
- Rist, G. & Schneider, P. (1979). *Integrating vocational and general education: a Rudolf Steiner school*. Hamburg: Unesco institute for education.
- Rist, G. & Schneider, P. (1977). *Die Hiberniaschule – von der Lehrwerkstatt zur Gesamtschule: eine Waldorfschule integriert berufliches und allgemeines Lernen*. Hamburg: Rowohlt.
- Rudolf Steiner-Schule Nürnberg. (2004). *50 Jahre Schreiner-Lehrwerkstatt der Rudolf Steiner-Schule Nürnberg*. Osterby: Willmann Werbeagentur.
- Schmalenbach, B. (2011). *Kunst in der Ausbildung sozialer Berufe*. München: Kopaed.
- Schneider, P. & Enderle, I. (2012). *Das Waldorf-Berufskolleg. Entwicklung und Ergebnisse einer neuen Oberstufengestaltung der Waldorfschule*. Frankfurt: Peter Lang.
- Stöckli, T. & Wepfer, R. (Eds.). (1997). *Die Schule am Wildbach. Die Verbindung von Schule und Beruf als Chance für die Zukunft*. Jugendberichte. Dornach: Verlag am Goetheanum.
- Thelen, K. (2004). *How institutions evolve. The political economy of skills in Germany, Britain, the United States, and Japan*. Cambridge: Cambridge university press.
- Tyson, R. (forthcoming). One pedagogy – many practices: variations on formal and enacted curricula in Steiner/Waldorf schools. *RoSE - Research on Steiner education*.
- Tyson, R. (2015). *Vocational Bildung in action*. Licentiate thesis, Stockholm University Department of Education.