Giving subject lessons
from a Christian perspective

Driestar *hogeschool*

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COLOPHON

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Less is more. Teaching subjects from a Christian perspective.

This edition contains an extended version of the text of the lectoral address of Piet Murre. This speech was delivered by Piet Murre on April 11, 2021 during his installation as professor of education on school subjects and teaching pedagogy at Driestar Christian University of Applied Sciences.

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INHOUD

'For the teaching practice this means that you are looking for possibilities to connect subject matter and Christian faith with each other and where necessary to confront each other.'

(De Muynck et al., 2017, p. 17)

'It's not our expectation that teachers can read a book, flip a switch, and magically transform their teaching. Rather, we believe that there are teachers who aspire to understand the art and craft of teaching a little better each day, who are willing to take the risk of confronting the power of the work they do, and who are courageous enough to make small and large decisions each day based on benefits to their students. It is to those teachers that we offer the accumulated insights that make up this book.'

(Tomlinson & Imbeau, 2010, p. 150)

PREFACE

Teaching from a Christian perspective is an important, multifaceted and complex theme, especially when we think of subject matter and pedagogy[1]. It is important, because it has to do with the task or vocation as it comes to teachers from the Bible. A vocation to do our daily work as well as possible and to lead others to Christ, in which these two should not be pulled apart too much[2]. It is an important theme, because the intention is that pupils will notice something of this. It is also a multifaceted theme. It concerns, for example, all forms of education, primary school, secondary school, and further vocational education. Perhaps also the university or something completely different, such as home education. It also concerns many and quite different subjects. That multifacetedness on its own makes it complicated, but there's more to come. The complexity also lies in the mutual relationship between theory and practice, the teacher as a person and his teaching activities, teaching and learning, reality and knowledge thereof, wisdom from the past and focusing on the future, the present life and the eternal future of our pupils, not to mention more. All this can hardly be done justice in one type of contribution, apart from what the different types of readers will expect[3].

In this book[4] I therefore approach the theme from different angles. The book consists of two main parts: the first part is conceptual, the second part contains design principles, ending with an example of a lesson. In the first part, chapters 1 through 6, a theoretical foundation is formulated after the central question, as it were, and a number of key points and choices are justified. These chapters also include a number of excursuses on themes that touch on the main theme and that require some elaboration. The excursuses can be read separately from the main text. These six chapters are intended for readers who are interested in the conceptual background of the chapters that follow. Readers who would like to go immediately to 'what it means in practice' can skip these chapters or only read the summary in the boxes at the end of each chapter or section.

This foundational part is followed by a creative step in order to arrive at the second part, which deals with the teaching practice itself. In chapter 7 I formulate seven subject-matter related design principles. Chapter 8 is about how a teacher can actually design or redesign lessons with these design principles. Then another creative step follows, because chapter 9 presents a sketch of a concrete lesson. The steps are creative and not logical-deductive, because with these principles many different lessons are possible. Something similar also applies to the relationship between the design principles and the foundational chapters 1 through 6.

Chapter 10 concludes the argument with a few summarizing remarks and an outline of the research to which I want to contribute.

Psalm 127 verse 1 says: 'Except the LORD build the house, they labour in vain that build it'. It is my prayer that the perspectives in the various chapters, each on its own and taken together, may contribute to education to which the name of Christ is rightly connected.

Piet Murre

CHAPTER 1

THE QUESTION

Teachers, managers, parents and church councils harbour all kinds of concepts of a Christian school and of Christian teaching. They think of Christian rituals, such as devotions and celebrations, certain Bible-related school rules, 'golden moments' that can occur unexpectedly in the interaction with pupils, and a pedagogical relationship that is characterised by biblical notions about relationship and authority (a.o. Murre, 2017b). What is often lacking in these images is a consciously adopted teaching pedagogy and consciously made choices in subject matter as part of this, from a Christian perspective.

This is a problem, because it leaves most of the subject matter out of the picture. Suppose a teacher has a fantastic golden moment with his pupils five times a year, then about a thousand 'ordinary' subject lessons remain in the rest of the year. Ordinary - but unfortunately in the sense that there is no Christian perspective. Thus, many opportunities for formation remain unused. To put it more bluntly, pupils are then actually being formed (or deformed perhaps?) in a secular sense. That really is wasting opportunities.

CENTRAL QUESTION

The question I would therefore like to explore is: 'How can choices in subject matter and pedagogy (didactics) contribute to teaching from a Christian perspective?' Many concepts and (paired) terms play a role in this issue[5]. So we will have to create some order and make choices. That order inevitably leads to a sequence, even if things should be said at the same time.

The central question itself highlights one particular angle of the well-known didactic triangle, namely the subject matter. In the context of the question I leave the other two angles (pupil and teacher) largely undiscussed. I only mention here that a Christian teacher must be a Christian (Viscount, 1981, p. 15; Pieper, 1981, p. 35; Vergunst, 1981, p. 21; Graafland, 2004) and that education can only be called Christian in its deepest sense if there is a connection with the scriptural Christ through faith[6], which also manifests itself in imitation, gratitude and sanctification[7]. Conversely, more needs to be said about the subject matter, in terms of content, which concerns an area of reality. This regards, first of all, the nature of reality and how it can be known (chapter 2); ontology and epistemology respectively, on which (according to Palmer amongst many others, 1998, p. 95) all education is built[8]. Next, we will discuss how to teach and what choices can be made in the subject matter and the way in which these choices are made (pedagogy, chapter 3)[9]. The central question relates the subject matter and pedagogy of teaching from a Christian perspective. This also raises the question to what extent teaching from a Christian perspective is different from teaching from another perspective (chapter 5). A separate issue is whether and to what extent all the concepts mentioned above can be related to each other in such a way that a comprehensive, coherent system is created. Chapter 4 says something about this. Chapter 6 discusses a number of types of sources that can help to answer the central question.

Summary:

The central question of this book is: 'How can choices in subject matter and pedagogy (didactics) contribute to teaching from a Christian perspective?'
The question is explored in the first part on the basis of considerations about reality, knowledge, pedagogy and systematisation.

CHAPTER 2

REALITY AND KNOWING IT

Subject matter is, of course, about the reality that surrounds us[10]. This reality must in any case be said and confessed to be made by God, through His creative Word (Psalm 33 verse 6). Through Christ, as the Son of God's love, 'all things are created that are in heaven and on earth, that are visible and invisible, whether they be thrones or dominions, or principalities, or powers; all things were created by Him and unto Him'. This text from Colossians 1 verse 16 puts the confession of 'Whose reality' and what reality is in soteriological light; the perspective of salvation, reconciliation with God and substitutionary atonement (2 Corinthians 5). Glimpses of this can and may resound in many ways. From the first week of cosmic history this creation is upheld by Christ's powerful Word (Hebrews 1 verse 3). The sin that has come into the world, however, perverts everything since Genesis 3 and there is chaos, brokenness, absurdity, guilt. But even in its brokenness this world remains God's creation. The commission to 'tend and keep' (Genesis 2 verse 15) has not been withdrawn either. God's goodness makes this creation not only livable (a somewhat minimal expression), but 'The LORD is good to all, and His tender mercies are upon all His works' (Psalm 145 verse 9). The creatures together are therefore like a 'beautiful book' (Belgian Confession, Article 2; cf. Kunz, 2013), which speaks about its Maker. This reality is worth getting to know, because God made it and maintains it and because it remains our task to build and keep it as a steward. Because of the destructive power of sin, creation groans for salvation (Romans 8) at the end of time. A salvation that comes, thanks to the saving work of Jesus Christ.

BIBLICAL UNDERSTANDING OF KNOWLEDGE

Creation and culture can be known to a certain extent by us humans. However, the biblical concept of knowledge goes far beyond cognitive, measurable and reproducible knowledge, which is often emphasized nowadays. It concerns the heart as the centre of our existence (Velema, 1997; Pop, 1975 s.v.). Knowledge and wisdom then are closely related, for example in the book of Proverbs (Heino, 2015, p. 47). This implies that teaching must also be aiming for wisdom, the fear of the Lord that is its beginning (Psalm 111 verse 10; Proverbs 1 verse 7), the heart, the whole existence.

According to Bavinck (1901, 1904a, 1904b, p. 28; 1904c, p. 134; 1908), eventually reality can be known because our Creator made reality outside us to correspond with our thinking. Bavinck bases his doctrine of knowledge on the confession that God created both the object and the subject in an organic relationship (see also Murre, 2015, p. 16v)[11]. This knowledge is imperfect and limited and, paradoxically, both stable and provisional. The stability lies, among other things, in the fact that reality is not totally coincidental or unpredictable from moment to moment. The provisional character has to do with the fact that someone's knowledge can grow and change substantially over time.

WONDER

The provisionality of knowledge certainly not only applies to pupils, but also adults - and therefore also teachers. This implies, among other things, that teachers should always remain pupils (e.g. Tomlinson & Imbeau, 2010, p. 135; De Muynck et al., 2017, p. 20), with the appropriate modesty, awe and wonder. For teachers, too, the reality of God functions as 'opposite'. Bavinck formulates it as follows: We believe in the immanent workings of God in all things created in the ordinary way of his providence, but the nature of these workings far exceeds our understanding. The difference between the unlearned and the scholar is that for the former everything is self-evident, and for the latter everything increasingly becomes a miracle' (1904a, p. 84).

The step from this quotation to teacher, pupils and pedagogy is rather small. That ‘for the latter everything more and more becomes a miracle’, should have as a natural consequence that for a teacher, who after all knows more than a pupil, the amazement and wonder is so much the greater. A teacher can reflect on this. That ‘for the former’ (the unlearned) ‘everything is self-evident’, leads to the pedagogic-didactic principle that Christian education should do away the taken-for-granted character of things. However, pedagogy is about more than only this, and that will be discussed in the next chapter.

Summary:

God made reality. That is why it is meaningful. Sin, however, plays a devastating role in it, as it does in culture. That is why creation groans for salvation through Christ's work. Knowledge is possible in principle and, although always partial, is not completely relativist.

EXCURSUS 1

Descriptions of goals

Throughout history, many types of goals have been formulated. Goals obviously (should) have consequences for pedagogy (are even part of it in principle) and the choice of subject matter. In this excursus a small selection. This offers the opportunity to reflect on goals and ideals that a teacher or school has - and (perhaps) practises.

Some not specifically Christian goals

Johan Friedrich Herbart (1776-1841)

> Virtue is the name of the purpose of education as a whole. It is the lasting realization of the idea of inner freedom in a person' (Herbart, 1964, par. 8).

Gert Biesta

> Good education could 'benefit from recognising that educational processes always have an impact in three areas. First of all, there is the domain of qualification. This concerns the role that education plays in the acquisition of knowledge, skills and attitudes that qualify children and young people to do something (...). It is also always a process of socialization. This is about the way in which, through education, children and young people become part of traditions and practices. In addition to qualification and socialisation, education always works on the person, that is to say, on human individuality and subjectivity: (...) personhood formation or subjectification' (Biesta, 2014, n.p.).

Mike Bottery

This professor at the University of Hull (England) mentions eight goals to pursue, in a book about educational leadership and values for education in today's time and culture (2004, p.8), the sixth of which I present in more detail:

1 An economic productivity objective. (...)
2 A democratic objective. (...)
3 A welfare state objective. (...)
4 An interpersonal skills objective. (...)
5 A social values objective. (...)
6 An epistemological objective: the need to communicate to students a deep understanding of the nature of knowledge, normally through the study of a particular subject discipline, which not only provides an understanding of this world, and generates a sense of awe and wonder, but also through understanding human epistemological limitations, a constant humility.
7 A personal development objective. (...)
8 An environmental objective. (...)

Some formulations of goals from a Christian perspective

From the project 'Investing in identity' of a primary school, shortly after 2000:

'We want to teach our pupils the attitude that the Bible is important for all subjects and areas of life. We do this by structurally drawing explicit attention to what the Bible says and the way it speaks'.

From 'The Essence of Christian Teaching':

'The main task of the teacher is to form pupils and develop them. He only succeeds in this if he knows how to touch them in the heart. This requires that he loves his pupils and also has a passion for the contents and meanings that are central to education. Furthermore, he must be able to actually give shape to the formative situations he has in mind and to guide and support pupils in their learning process' (De Muynck, Vermeulen & Kunz, 2017).

The educational goal of Herman Bavinck:

'... the goal of all education is, according to the beautiful word of the Apostle Paul, that the man of God be perfect, perfectly equipped for all good work, 2 Tim. 3:17' (1904c, p. 30).

The educational purpose of the Australian Noel Weeks:

'There is a goal for which we aim. It is functioning Christian maturity' (1988, p. 35)

The reformed educational goal of Waterink, as slightly adapted by Golverdingen:

'The formation of man – relying upon the Lord's blessing – contributing towards shaping the pupil into an independent individual, who serves God according to His Word, and is suited and prepared to employ the received gifts in His honour, for the creature's salvation, and for the benefit of the church, family and all social relations in which God places him or her'. (Golverdingen, 1995, p 82.).

CHAPTER 3

PEDAGOGY

Knowing reality is therefore, with the comments above, possible. For education, the question then arises as to what is the best way for pupils to get to know the world around them. Here we come to thinking about pedagogy[12]. In everyday speech, people then often think about the teaching methods or instructional strategies (two terms I will use interchangeably) that are used. However, didactics and especially pedagogy covers a much wider area. I will mostly use the term pedagogy as from now. That it is more than teaching methods can already be seen in one of Jan Amos Comenius' masterpieces, the Didactica Magna from 1657. But also in contemporary scientific language 'didactics' is broader. Dolch (1967) defined it as the science of learning and teaching in general. Tirri (2012) describes it as the 'science and art of teaching'. The term science is controversial (see also chapter 4). It seems crucial to me to keep the relationship between learning and teaching explicitly visible. After all, teaching is about learning[13].

ASPECTS

Pedagogy deals with various aspects of teaching and learning: the goals or ideals[14], learning intentions; themes and topics, subject matter and content to be learned; the methodology, such as the choice, sequence and duration of instructional strategies; the means and the way in which they are evaluated (cf. Arnold, 2012). Furthermore, the starting position of the students has to be taken into account and each subject has its own specific teaching methodology. Much has been written about each of these aspects and also about their interrelationship. One model that provides insight into this connection is the model 'Didactic Analysis' by the Dutch professor Leon van Gelder, which dates from 1971 (Van Gelder et al., 1973)[15]. Provided it is not understood in a technical and managerial sense, Van Gelder's model is very useful for education (cf. Stam, 1985).

Summary chapter 3:

Pedagogy is about learning processes in education, and in what way many different, interrelated aspects play a role in this.

CHAPTER 4

SYSTEMATISATION

A certain systematisation of thoughts and practices in a particular field can be fruitful. This also applies to education. This book is an example of such a systematisation, starting with ontological and epistemological considerations. At the same time, I share the view that we should not go too far in this. We can, perhaps, arrive at clusters of meaning, insight, harmony. But pretending that we could write a comprehensive Christian pedagogy seems to me to be an example of overestimating our human capacity. If we don't stop in time, it will turn out that our (thinking) system distorts reality or does not do justice to it. As people who are situated, live in a certain time and culture, who are limited as creatures and also sinful, modesty suits us. This certainly does not have to lead to complete silence or to failing to make attempts at clarification, theorising, insight, abstraction and conceptualisation. It does, however, help to relax somewhat and to realise that there will remain frayed edges and intrinsic tensions in our thinking and acting. Creation and what is somehow 'available' to us escapes total determination within a system, a framework of thought. In contrast to implicit reductionist philosophies and 'isms' that see the rest of reality discoloured (or no longer see it) by setting up one lens, an approach seems called for that tries to move forward on an issue by issue basis, without necessarily getting the answers to all the issues fully corresponding, even when trying to do so as much as possible. Of course, this approach is a lens as well.

PRINCIPLES

The term science ('science') as used by both Dolch (1967) and Tirri (2012) in their definition of didactics can be understood in a positivist-behaviourist sense. That is one-sided; 'science' suggests too much predictability and insight. After all, there are very many variables

that influence education and its outcomes. Just to give an indication: Bertolini et al (2012) mention 15 categories alone, each with a number of factors. Hattie (2009) mentions 138 factors, and this concerns only aspects that can be influenced by a school or teacher. These (categories of) factors also often appear to be interdependent. For this reason alone, the outcome of education is not predictable. It is therefore also impossible to foresee every situation and to know how to act in that case[16].

At the same time, this does not mean that nothing more can be said about pedagogy and subject content. Fortunately, that is the case. But instead of recipes, one should think of principles. Instead of learning how to follow a cookbook, we are talking about becoming a cook or master chef. Instead of applying techniques, we are talking about becoming a craftsman. Chapter 8 says more about that. And we think about all that from a Christian perspective. That is why the question is now raised to what extent there is a difference between the choices a Christian teacher might make with regard to pedagogy and subject matter, and the choices of a non-Christian teacher.

Summary

Good teaching is not a question of recipes, partly because so many factors are involved. Systematisation and conceptualisation are possible here and there, but designing a comprehensive and coherent system that runs from ontology to teaching practice seems to be lacking in appropriate modesty.

CHAPTER 5

DOES CHRISTIAN TEACHING EXIST?

In the previous section we talked about reality and knowing it and about pedagogy, and then about the possibility of building a coherent system from a Christian perspective. A number of Christian notions have been mentioned explicitly and more implicitly. However, when talking to fellow Christians about being a teacher and about (subject) teaching, a certain question, remark or objection often emerges. That is this one: 'But at a non-Christian school teachers teach well too, don't they? Beautiful things happen there as well don't they? They also have a heart for children and young people, haven't they?' Yeah, that's right, fortunately, and who would deny it? And the other way around, "Not everything goes well at a Christian school, does it? No, indeed, not everything is going swimmingly.

UNIQUE

There is a cluster of issues, opinions and beliefs, feelings and assumptions behind the above objections. I'll name a few. Can you speak of Christian teaching, which would be different from non-Christian teaching?[17] Isn't that presumptuous? Isn't it better to talk about Christians being teachers, just as a baker can be a Christian, or a bicycle mechanic?

The questions all have to do with the point of uniqueness. The question of whether Christian teaching is unique is therefore worth unpacking a little further. 'Uniqueness' usually means that nowhere else an identical thing can be found, that something is unique of its kind. The Eiffel Tower is unique[18]. Are Christian teachers like an Eiffel Tower? Maybe not, because Christian teachers often use the same teaching methods as non-Christian teachers and the subject matter seems or often is the same. Then Christian teaching at this level is clearly not unique.

DISTINCTIVE

Is Christian teaching therefore identical to teaching as shaped by non-Christians? That's the other extreme. If there is no difference, it immediately raises the question of whether there are neutral areas in which the Kingdom of God and that of this world coincide. This seems to conflict with biblical notions as being 'in the world', but not being 'of the world' (John 17) and Christ's statement that he who is not with Him is against Him (Matthew 12:30).

It seems that we are looking for a position between two extremes: totally unique versus identical to something else. Cooling (2010) uses the term 'distinctive', distinguishing (see also Fowler, 1987). A nice term, which relaxes the absolute character intrinsic to 'unique'. At the same time, of course, the question could be asked as to what is so distinctive about Christian education then[19]. Especially if we do not limit it to devotional moments, the pedagogical relationship and unexpected conversations with a philosophical edge, as mentioned in chapter one. Probably that 'distinctive' lies more in a combination of factors than in a single element. In the rest of this chapter I would like to make some remarks about this, because it all has to do with the central question of this book.

CALL

Perhaps first of all we should not concern ourselves with (not) being unique, neutral or distinctive. What we need to do is understand and carry out our vocation. The result of following our calling is first and foremost to the Lord. The result, in the sense of a different content and design of teaching than in the case of others (non-Christians), then may be, or is, also a natural consequence, rather than something that should be formulated in advance, in SMART terms, or that can serve as a prior design criterion.

LEARNING FROM NON-CHRISTIANS

Herman Bavinck takes the following approach. Science practiced by non-Christians, he judges as 'neither to be rejected nor accepted in its entirety' (1904b, p. 14), with reference to Augustine and the taking of

the pagan Egyptians' treasures by the Israelites on their exodus. He goes a little further when he says: 'Who would think nowadays to consider the effort and sacrifice small, dedicated to the service of science by non-believing scholars, and to reject the brilliant results obtained by them in diligent labour and untiring perseverance?' (1904b, p. 31). And he illustrates this with biblical texts: God 'makes his sun to rise on the evil and good', and 'Every good gift, and every perfect gift is from above, and comes down from the Father of lights' (Matthew 5 verse 45 and James 1 verse 17 respectively).

By analogy with Bavinck's reasoning, one could say that there is much to learn and much good to see in non-Christian teachers. Lockton formulates it more critically when he 'contend[s] that the Christian critique enhances and enlarges the otherwise restricted, partial viewpoints of the secular approaches. Reality is larger and more complex than they [non-Christian scientists, P.M.] admit'. (1990, n.p.). The latter is true, but reality is also larger and more complex than Christian scientists or teachers will ever see. Feelings of superiority are out of the question anyway.

COMMON GRACE

I believe that teaching as such falls within the realm of God's common grace. That means that there are many elements in good teaching that belong to learning and teaching, such as learning by imitation and modelling, and formation through habits, traditions and ways of doing. Deuteronomy 6, for example, also talks about diligently teaching God's law by paying attention to it at all times and everywhere. In a sense, this design and practice is general, and not distinctive or even unique. The motive, the purpose and the content are, however, directly determined by what the Lord asks. At the same time they qualify and colour the way the teacher acts.

STRUCTURE AND DIRECTION

Reformed philosophy, introduced by Dooijeweerd in the first half of the twentieth century, makes a distinction between structure and direction (Kalsbeek, 1974; Van Woudenberg, 2004). Structure then indicates the norms that must be met in order to belong to a particular social 'practice', while 'direction' indicates the direction in which this practice

moves, based on values and beliefs (Jochemsen, Kuyper & De Muynck, 2006). Education is such a practice (De Muynck, 2006, p. 55f)[20]. Education is always about formation, and certain techniques and widely recognized practices are intrinsic to educational practice. This concerns the structure or the constitutive side; that which makes education education. The direction in which this formation goes and how these techniques and practices are used are concerned with the direction, or the regulatory side. With this approach, both what is generic in teaching, and the influence of faith, worldview and philosophy of life that is always there, Christian or not, are recognised[21].

However, some caution is required when interpreting this direction. Abraham Kuyper had high ideals when the 'gereformeerde Vrije Universiteit' (reformed Free University) was founded in Amsterdam in 1880. It had to be about Christian science. They endeavoured to do this really sincerely. But it has also turned out that it is not exactly easy to give shape to a Christian approach in all areas. This can be seen in many places in Van Deursen's account of the history of the Vrije Universiteit (2005), and it is sad to see the demise in bird's-eye view account. Prudence in making claims that are too firm and too easy is therefore called for[22]. Nevertheless, in all modesty teaching Christianly, in my opinion exhibits a colour of its own, in an organizing principle, an underlying philosophy of life and the world, an antithesis perhaps, and a desire (Kalkman et al., 2005; De Muynck, 2016), which can be formulated, and which suggest practical implications for what happens in the classroom.

Summary chapter 5:

God's common grace makes good teaching possible, including that of non-Christians. How a Christian teacher acts colours his teaching, although lessons are not a priori designed to be distinctive or unique. The 'direction' of teaching is value laden and in Christian teaching includes the transcendental and vertical.

CHAPTER 6

SOURCES OF KNOWLEDGE AND WISDOM

To answer the central question of how choices in subject matter and pedagogy can contribute to teaching from a Christian perspective, it helps to consult sources. The previous chapters dealt with several fundamental issues related to this theme[23]. All through the ages these questions have been there to answer, to adopt a stance, even though the answers may differ and even though every time has its own questions or specific renderings of questions[24]. It would not only testify of a limited view, but also of pride, if we pretend that thinking and acting about (Christian) teaching has only just begun in roughly our own year of birth. Which sources would be appropriate then to look for directions and answers? And what do these sources say about the question to which this book seeks an answer?

6.1 THE CHOICE OF SOURCES

In any case, at least four types of sources can be considered to draw on: past or present educational philosophers, empirical scholarly sources, (auto)biographies of teachers (usually in book form) and our own experiences as teachers together with those of teachers around us[25]. The Bible is sometimes also seen as a source; we need to speak about this separately.

Educational philosophers

By educational philosophers[26] I denote people who at some time in the cultural history have contributed to the conceptual reflection on the issues associated with education and learning and who have also been involved with education and its design in a practical sense. So formulated, this concerns a large number of people (see for example Kroon & Levering, 2008; Los, 2012). That is why a further limitation is

in order. To this end, I use roughly the same criteria as those used in the two parts of two books we published about educational philosophers ('Vitale idealen, voorbeeldige praktijken' 'vital ideals, exemplary practices', Murre et al., 2012, 2014). I am talking about 'well-known pedagogical thinkers from all of Western history, including classical antiquity' (2012, p. 15.). By choosing enough variation in the choice of pedagogues, their combined insights offer 'a cross-section of themes and insights gained within the pedagogical world' and the 'whole of the chosen persons is more than the sum of its parts' (2012, p. 15). My thinking is inspired mainly (but not exclusively[27]) by pedagogical thinkers from the broad Christian tradition, and then only those who have been involved in education itself and not exclusively in upbringing in the family. As already mentioned, they are not 'pure theorists, nor are they people who have shown good and beautiful practices, but have not reflected on them' (2012, p. 15). I also prefer to choose pedagogical sources that have shown a certain degree of lasting value (cf. Murre, 2005).

Scholarly sources

Empirical-analytical research into teaching and learning is not uncontroversial. This kind of research is usually subsumed under 'school effectiveness' research, and deals with the question 'what works well'. It concerns an extensive knowledge base of all kinds of interventions, practices and the like, of which the extent to which they have led to learning has been researched. Thousands of articles in peer-reviewed journals contain the results. It has also been summarised (and sometimes popularised somewhat) by well-known authors such as Robert Marzano (2003, 2007), Marzano et al. (2005) and John Hattie (2009, 2012), although there are many others (e.g. Bain, 2004; Loughran, 2010; Kirschner et al., 2018). A characteristic of this type of research is that it identifies factors that influence pupils' learning. Another feature is that their influence is measured and quantified. This also makes it possible to list and model which things contribute to pupils' learning (or not, cf. Kirschner et al., 2006; De Bruyckere & Hulshof, 2013; De Bruyckere et al., 2015) and which characteristics effective education must then exhibit. Empirical-analytical research shows which factors matter in certain educational situations and what their relative importance is

(cf. Davies, 1999). At least, provided that it clearly delineates how the various factors and variables are defined and measured[28]. It thus transcends the individual impressions of teachers[29].

(Auto)biographies of teachers

The advantage of biographies, autobiographical descriptions and also fiction and films about teachers, is that they are narratives and usually easy to read. As a reader, you can empathize with the author's situation and compare his story with your own. The author serves as an interlocutor. Examples include autobiographical books such as *The Passionate Teacher* (Fried, 2001), *All teachers great and small* (Seed, 2011) and a description of Dutch schoolmasters such as Van Rooijendijk's book (2010). Thijssen's *De gelukkige klas* (Thijssen, 1926/2007) is an autobiographical work. Fiction as *Teacher Man* (McCourt), *To sir with love* (Braithwaite, 1959) and *School Blues* (Pennac, 2007) can also provide a mirror. This also applies to certain educational films (Lynch, 2016). None of the above sources are Christian and the extent to which they can be fruitful will depend on how they can be embedded in a Christian frame of mind[30].

Own experiences and experiences of colleagues

What someone experiences, discovers and learns himself often becomes firmly entrenched, especially when situations are extraordinarily impressive and meaningful for the person involved. The cumulative experience of the team in which we function as a teacher is usually greater than our own. Working together with immediate colleagues on the core of education can therefore also be very powerful, provided certain conditions are met (see for example Darling-Hammond et al., 2009; Darling-Hammond, 2017). It should be noted that experience alone is not the determining variable and at any rate its effect on student learning tends to level off after five to seven years (Berliner, 2004). It is also possible to spend a complete career in education, with 39 years of experience after one year of learning (Murre, 2015). When learning in a team, there is also the risk of 'groupthink' (Janis, 1972). Nevertheless, with an equal degree of expertise, team members can be an inspiring source of insights and ideas.

The Bible

Much has been written about the use of the Bible as a source of knowledge for areas of daily life. Broadly speaking, I share the view that the Bible should not be used in a direct sense as a source, let alone as a handbook, for any field of activity or science. This applies to obvious activities such as making currant bread and laying street tiles, but also to arranging a lesson. The Bible is God's revelation to sinners about their eternal destiny and how they can be saved through the redemptive work of the Lord Jesus Christ. That said, at the same time, in all areas of life, thinking and doing must be in accordance with a life that heeds God's commandments[31]. This currant bread must be healthy and reasonably priced, because the baker must also love his neighbour. The tiles must be laid well, because that has been agreed with the customer and he must not be deceived. And the same goes for a lesson. It has to comply with the rules of art, because that is an expression of loving the students as our neighbours, obeying our superior (the fifth commandment), and thus fulfilling our vocation.

It is not possible to be in any way complete in reflecting what the above sources say about teaching in general and Christian teaching, pedagogy and subject matter in particular. A long list of important points could be made[32]. In the context of the central question, this book focusses on subject matter and pedagogy. I will therefore limit myself here to a few biblical notions, then offer some remarks about goals and ideals (as these can guide what subject matter to select - and sometimes vice versa), and thirdly about teachers, a passion for your subject, and learning. Each of these have been further developed into three excursuses.

Summary:

We do not have to start from scratch if we want to pursue Christian teaching practices. Pedagogical thinkers, researchers, teacher-narrators and experienced practitioners can help us with important notions. The Bible itself is not a pedagogic manual, but it does provide ground rules, boundaries, and a sense of direction.

6.2 SOME BIBLICAL LINES

In Christian teaching some of the Bible texts are very popular: to 'sharpen' (teaching diligently) from Deuteronomy 6 verse 7, to educate 'in the teaching and admonition of the Lord' from Ephesians 6 verse 4, to teach the 'hope of God' from Psalm 78 verse 7, and to teach the young person the first principles 'in the way he should go' from Proverbs 22 verse 6. There is little wrong with that popularity, but there are many more places where the Bible teaches us things about teaching (see also excursus 2). In the context of the central question, I would like to touch on just a few of these.

Citing Bible texts

Education is not necessarily more Christian (i.e. related to Christ) if more texts are quoted in lessons, materials, policy documents and the like or on the walls of school buildings[33]. There may also be a degree of artificiality if, for example, the number pi refers to the copper laver where the ratio of size to diameter is about 3.14. Or when a triangle is used as the most stable and undistorted figure, to bring up the Trinity. Or when biblical texts are used as practice material for writing. It may even be the case that, despite many Bible texts, a secular educational concept is practiced, for example in a behaviourist or extreme constructivist sense. All this, however, does not alter the fact that there are indeed many texts that say something about areas of created reality and culture, which could also function in subject conceptualisations and, if used wisely (and sparsely), in concrete lessons. A small selection of these texts for some subjects can be found in excursus 2.

Inside and outside

Conversely, teaching, pedagogy, and subject matter can be permeated by fundamental biblical, Christian thoughts and patterns, without these ever being made explicit. The latter is a pity, because although imitation and identification are important and can occur without devoting words to any underpinning convictions etcetera, opportunities remain unexploited. Making considerations explicit also facilitates discussing and exploring these basic patterns together with pupils[34].

However, there is yet another important point to be made. When biblical basic patterns do not come to the fore in the subject lesson, it can also be a sign that they are not there, or hardly there at all. Since Genesis 3 we are inclined to secular, godless thinking. The direction of our heart is wrong and therefore the heart needs to be renewed (Ezekiel 36). So it is not an imaginary risk that education is Christian in name, but in practice is shaped along secular lines. At the deepest level it comes down to the orientation of the teacher's heart (the 'inside') and the extent to which he knows how to give shape to Christian notions in his subject lessons (the 'outside', see also what is mentioned in chapter 1).

Summary:

The Bible contains many texts and lines of thought that say something about teaching and its subject matter. Frequent quotation of these texts and lines of thought does not necessarily lead to Christian teaching. However, not studying them and leaving them unnamed is the other extreme and can be an expression of a secular, godless, conception of teaching and reality

6.3 WHAT SOURCES SAY ABOUT GOALS

All types of sources pay attention to the ideals and goals they have in mind for education. These are not always explicitly mentioned and there are voices that say that it is not right for us, adults, to determine what the goal should be for pupils (cf. Meijer, 2013, p. 142). However, this position seems difficult to maintain, and in the end even then a certain goal is also pursued in that case.

Main goal

In the words of the Westminster Catechism, the Holy Scriptures convey the notion that the chief end of men (man's primary purpose) is to glorify God and enjoy Him forever (Westminster Catechism, answer 1). A Christian upbringing should reflect that, and by implication education too, as being part of that. Additionally, and notwithstanding, there are certainly ends for the life here and now. A somewhat long formulation comes from Waterink (1958, p. 121), adapted by Golverdingen (1995, p. 82; 2003, p. 46). He states that teaching should be aimed at

> '(...) – relying upon the Lord's blessing – contributing towards shaping the pupil into an independent individual, who serves God according to His Word, and is suited and prepared to employ the received gifts in His honour, for the creature's salvation, and for the benefit of the church, family and all social relations in which God places him or her'.

Taxonomies

In the definition above there is a lot that points to certain directions. However, for everyday teaching practice this definition is too abstract and too comprehensive. It is more practical to use goals as formulated according to the (revised) taxonomies of Bloom (Krathwohl, 2002). However, there are a few caveats to this. First of all there must be a line from the lesson goals to the more comprehensive and profound goals on a longer term and finally to the elements as mentioned by Waterink and Golverdingen. Secondly, cognitive goals should not be used on their own. Affective and psychomotor aims are all part of it. Thirdly, there should be an integrative whole[35]. Finally, when formulating concrete goals at lesson level, there is a risk that they will be narrowed down

exclusively to measurable and easily formulated points (rather positivist and behaviourist at heart (Biesta, 2018, p. 30)). Then precisely the more profound and fundamental ideals can disappear from sight. This is not to say that accuracy and precision should not also be strived for where beneficial.

To avoid any misunderstandings: it is not the case that only Christians have an eye for goals that do more than scratching the surface. Bottery formulates as the sixth goal of contemporary education an

> 'epistemological objective: the need to communicate to students a deep understanding of the nature of knowledge, normally through the study of a particular subject discipline, which not only provides an understanding of this world, and generates a sense of awe and wonder, but also through understanding human epistemological limitations, a constant humility'.(2004, p. 8).

From this single quotation it is clear that a sense of awe, wonder and humility are to be pursued; something a Christian teacher will affirm[36]. The role of subject matter knowledge is also touched upon.

Summary:

God created man to know, honour and praise him and to love and serve his neighbour. This very global life goal can and must be made much more concrete for lessons in order to suggest directions. Yet, the overarching ideal must be recognisably retained, so that there is no one-sided emphasis on cognitive and measurable goals. Then taxonomies like Bloom's are very useful.

EXCURSUS 2

Texts from the Bible with implications for teaching

Too often the Bible is left closed, under the motto that it is not a handbook for the profession we teach. Although that is true, there are many texts that tell us something about God's (ongoing) work, His intentions, and our actions. In this excursion, as an encouragement for more thorough Bible study, only a few texts have been written out which (in addition to the well-known texts from Deuteronomy 6, Ephesus 6 and Psalm 78) are useful to consider. Not to pour them out rücksichtslos over pupils. I will confine myself here to the subjects of geography, biology and physics, and take one theme as an experiment, namely how and what we and our pupils discuss. In other subjects and themes, sometimes the same, but often different texts can be found that provide clues.

Geography

Genesis 8:22

> While the earth remaineth, seedtime and harvest, and cold and heat, and summer and winter, and day and night shall not cease.

Deuteronomy 32:8

> When the most High divided to the nations their inheritance, when he separated the sons of Adam, he set the bounds of the people according to the number of the children of Israel.

Psalm 24:1

> The earth is the LORD'S, and the fulness thereof; the world, and they that dwell therein.

Psalm 104:13

> He watereth the hills from his chambers: the earth is satisfied with the fruit of thy works.

Psalm 104:24

> O LORD, how manifold are thy works! in wisdom hast thou made them all: the earth is full of thy riches.

Ecclesiastes 1:7

All the rivers run into the sea; yet the sea is not full; unto the place from whence the rivers come, thither they return again.

Matthew 5:45

That ye may be the children of your Father which is in heaven: for he maketh his sun to rise on the evil and on the good, and sendeth rain on the just and on the unjust.

Acts 17:26

And hath made of one blood all nations of men for to dwell on all the face of the earth, and hath determined the times before appointed, and the bounds of their habitation.

Romans 8:22

For we know that the whole creation groaneth and travaileth in pain together until now.

Hebrews 1:3

Who ... upholding all things by the word of his power.

Biology

Psalm 111:2

The works of the LORD are great, sought out of all them that have pleasure therein.

Psalm 145:16

Thou openest thine hand, and satisfiest the desire of every living thing.

Psalm 147:14

He maketh peace in thy borders, and filleth thee with the finest of the wheat.

Acts 17:26

And hath made of one blood all nations of men.

Romans 8:22

For we know that the whole creation groaneth and travaileth in pain together until now.

Hebrews 1:3

Who … upholding all things by the word of his power.

Physics

Psalm 8 and 104 as a whole

Psalm 24:1

The earth is the LORD'S, and the fulness thereof; the world, and they that dwell therein.

Psalm 111:2

The works of the LORD are great, sought out of all them that have pleasure therein.

Jeremiah 31:35

Thus saith the LORD, which giveth the sun for a light by day, and the ordinances of the moon and of the stars for a light by night, which divideth the sea when the waves thereof roar; The LORD of hosts is his name:

Jeremiah 31:36

If those ordinances depart from before me, saith the LORD, then the seed of Israel also shall cease from being a nation before me for ever.

Jeremiah 33:20

Thus saith the LORD; If ye can break my covenant of the day, and my covenant of the night, and that there should not be day and night in their season;

Jeremiah 33:25

Thus saith the LORD; If my covenant be not with day and night, and if I have not appointed the ordinances of heaven and earth;

Hebrews 1:3

Who … upholding all things by the word of his power.

Our conversation

Psalm 19:15

Let the words of my mouth, and the meditation of my heart, be acceptable in thy sight, O LORD, my strength, and my redeemer.

Proverbs 25:11

A word fitly spoken is like apples of gold in pictures of silver.

Romans 14:11

For it is written, As I live, saith the Lord, every knee shall bow to me, and every tongue shall confess to God.

2 Corinthians 10:5

Casting down imaginations, and every high thing that exalteth itself against the knowledge of God, and bringing into captivity every thought to the obedience of Christ;

Philippians 2:11

And all tongues would confess that Jesus Christ be the Lord, for the glory of God the Father.

And that every tongue should confess that Jesus Christ is Lord, to the glory of God the Father.

Philippians 4:8

Finally, brethren, whatsoever things are true, whatsoever things are honest, whatsoever things are just, whatsoever things are pure, whatsoever things are lovely, whatsoever things are of good report; if there be any virtue, and if there be any praise, think on these things.

James 1:26

If any man among you seem to be religious, and bridleth not his tongue, but deceiveth his own heart, this man's religion is vain.

James 3:5

Even so the tongue is a little member, and boasteth great things. Behold, how great a matter a little fire kindleth!

James 3:6

And the tongue is a fire, a world of iniquity: so is the tongue among our members, that it defileth the whole body, and setteth on fire the course of nature; and it is set on fire of hell.

James 3:8

But the tongue can no man tame; it is an unruly evil, full of deadly poison.

6.4 WHAT SOURCES SAY ABOUT PASSION FOR A PROFESSION AND FOR LEARNING

The next point I want to make from the sources mentioned, is what is said about subject knowledge, passion and learning. This fits perfectly with my own thoughts about good Christian teaching. A few quotations may suffice to indicate the main ideas. Teaching does not really happen if no learning occurs. That learning is based on a thorough understanding of both the content and the pupils (Tomlinson & Imbeau, 2010, p.84)[37]. Robert Fried, a primary school teacher, says in his autobiography: Passionate teachers organize and focus their passionate interests by getting to the heart of their subject and sharing with their students some of what lies there - the beauty and power that drew them to this field in the first place and that has deepened over time as they have learned and experienced more. They are not after a narrow or elitist perspective, but rather a depth of engagement that serves as a base for branching out to other interests and disciplines. (...) Passionate teachers convey their passion to novice learners - their students - by acting as partners in learning, rather than as 'experts in the field'. As partners, they invite less experienced learners to search for knowledge and insightful experiences, and they build confidence and competence among students who might otherwise choose to sit back and watch their teacher do and say interesting things. (2001, p. 23). As Carr argues, 'we might expect' subject teachers in secondary education 'to exhibit a contagious enthusiasm and passion for their specialisms by which others might become just as deeply infected' (2005, p. 264, cf. Csikszentmihalyi & McCormack, 1986, p. 418). This gives rise to what Palmer calls a 'community of truth' (1998, p. 95).

Learning environment

Good teachers have to work and study hard for this themselves. 'They follow the important intellectual and scientific or artistic developments within their fields, do research, have important and original thoughts on their subjects, study carefully and extensively what other people are doing in their fields' (Bain, 2004, p. 16)[38]. They 'often read extensively in other fields (sometimes far distant from their own), and take a strong interest in the broader issues of their disciplines: the histories,

controversies, and epistemological discussions' (ibid, p. 16). They 'have an unusually keen sense of the histories of their disciplines, including the controversies that have swirled within them, and that understanding seems to help them reflect deeply on the nature of thinking within them' (ibid, p. 25).

This does not mean that this type of teacher all do the very same thing, uses the very same teaching methods or is the same kind of person; on the contrary (Fried, 2001, p. 23[39]). What they do have in common, however, is that they often try to create something of a 'natural critical learning environment' (Bain, 2004, p. 18)[40]. Setting up and using such a learning environment takes time. That is why this type of teacher also very consciously leaves things alone: 'A teacher is wise in terms of that part of the curriculum he or she conscientiously chooses not to cover' (Fried, 2001, p. 24)[41]. For a passionate teacher, designing a learning environment and paying attention to pupils and learning therefore always goes hand in hand with enthusiasm for a subject from which he knows how to select meaningful things. For a Christian teacher, subject matter is not just a cultural artefact, an accidentally accumulated 'body of knowledge', or just 'everything that the future teacher at that teacher training course will be presented in one way or another' (Geerdink & Pauw, 2017, p. 11). He also sees this subject as related to God (Jaarsma, 1953, p. 237, see also chapter 2). After all, 'all education is built' on 'assumptions about the nature of reality and how we know it' (Palmer, 1998, p. 95). However, the type of school and the age of the pupils also determine how exactly these things relate to each other.

Summary:

Passion for a subject is extremely important. That subject is part of the reality that God has made so. Teachers who know their subject and are nourished by it can actually choose what is important to their students in their (type of) school.

6.5 IN SUM, SO FAR

So far we have dwelt on reality, its knowledgeability, and the place of pedagogy in thinking about education. Subjects and subject matter are about reality as made by and provided for by God. It is evident that this reality is far too broad and comprehensive to be 'learned', if that would be at all desirable. Pedagogy, which deals with the broad field of educational learning processes, helps a Christian teacher (how) to make choices. This also applies to different types of sources. A number of things have been said about goals and ideals and about the subject knowledge and passion of a teacher. This also applies to the Bible itself. We have also seen that a Christian lesson will not necessarily be or need to be unique in every way.

However, from all the things mentioned above it is not immediately apparent what a lesson looks like from a Christian perspective and what that means for subject matter aspects, as well as how to teach such a lesson. This requires further concretisation. In the next chapter therefore I will present a design diamond: seven design principles.

CHAPTER 7

THE TEACHING PRACTICE: SEVEN SUBJECT-RELATED DESIGN PRINCIPLES

In this chapter I present the design diamond: seven subject-related design principles. Principles 1 and 2 are about the subject matter itself; 3, 4 and 5 are about the way in which selected content is dealt with in lessons; 6 and 7 are again about the subject matter, but then mainly related to current culture and the Bible. These principles are in line with what has been discussed in the previous chapters, but cannot be deductively derived from them. These principles are subject-related: they say something about the choice of subject matter and about the way in which this subject matter is dealt with in the lesson. In this sense they make a number of points from *The Essences of Christian Teaching* more concrete (De Muynck et al., 2017). The seven design principles mentioned above can also be read as an expression of biblical values and together they also enable teachers to make (implicit) values (more) explicit[42].

PRINCIPLE 1: LESS IS MORE

You can put this principle in different ways, each shedding light on a particular aspect: less is more, small is beautiful, slower is better, ruminating, doing away with hurry and haste, slow education. The programme that a teacher has to complete for a course has long been considered overloaded. Kohnstamm said that as early as 1928 and made the remark '*abundance* of knowledge cet. par. [if all other things are equal, P.M.] always seems to stand in the way of *thoroughness*' (p. 345; Kohnstamm's italics). According to De Rooij in his recent survey of the last two hundred years of the history of education in the Netherlands, the complaint is perennial (2018, p. 264; cf. Curré & Termeer, 2018). The natural tendency in curricula, coursebooks and lessons often seems to be that more and more needs to be dealt with in less and less time.

However, when all pixels of a Mona Lisa picture have been studied, there's no guarantee whatsoever that its power as a work of art is experienced. The trick is not to do more but to do less; to do that more deeply and to take the time to do so. 'Everything is spoilt by hurry' (Wagenschein, 1976, p. 11; cf. Kalkman et al., 2005).

Parker Palmer phrases the point of doing more with less as follows:

> 'How can we reconcile the demands of space and stuff? Some approaches began to emerge for me when I asked myself, "What is the optimum use of the brief time my students and I share in the space called the classroom?"
> Rather than use that space to tell my students everything practitioners know about the subject - information they will neither retain nor know how to use - I need to bring them into the circle of practice in that field, into its version of the community of truth. To do so, I can present small but critical samples of the data of the field to help students understand how a practitioner in this field generates data, checks and corrects data, thinks about data, and shares data with others.
> That is, I can teach more with less, simultaneously creating space and honoring the stuff in question' (1998, p. 124).

Less is more. More deeply by less. Then in order to choose that 'less' in a good way, you need to understand your subject very well (especially from the perspective of principle 2). And in order to do it more profoundly, how you deal with it is crucial (principles 3, 4 and 5). To sum up: Doing too much engenders superficiality, in any type of school. Conversely, as the proverb has it: 'Anything that's worth doing is worth doing well'.

PRINCIPLE 2: USE PIVOTAL ISSUES

More by less says principle one. So for teachers the question arises how to choose that 'less'. It then helps if you are familiar with the 'pivotal issues' of your subject. Every discipline comprises a limited number of foundational concepts. They usually reveal important insights in the way in which reality is viewed within this discipline, and which problems and dilemmas have played or are still playing a role[43].

The idea of pivotal issues is not entirely novel. Bavinck stated in 1904: 'Not every subject and not everything in every subject is equally important' (1904c, p. 170). 'The teacher, who considers everything to be equally important and equally useful, [demonstrates] that he lacks perspective on his subject, or an organic insight into his subject' (ibid.)[44]. As Palmer points out, 'every discipline has a gestalt, an internal logic, a patterned way of relating to the great things at its core' (1998, p. 124).

The various subjects each reflect different parts of reality as made and sustained by God, so the 'gestalts' and pivotal issues will also be different, as illustrated by the following - somewhat random - examples. In languages, for instance, (youth) literature and the themes it highlights mirror the time in which it was written. Language is also about understandability and clarity, truth and imagination. For foreign languages the respective cultures, unknown customs, (specific) people and their history offer possibilities to generate interest in and empathy with faraway neighbours. Biology knows for instance about concepts such as adaptation, symbiosis and parasitism, as well as the enormously complex way organs and processes work in living creatures. In physics, ostensibly simple concepts as force, density and velocity are pivotal, but also abstract and abstruse ones such as energy. History can open eyes for perspectivity, truth, relativsm, causality, the contingent, responsibility, care, and so on, but also how the Word of God is being spread across the globe throughout the ages.

Subject-oriented lesson

If pupils and teachers experience something of these pivotal issues together, this can ensure that pupils learn to observe, think and act to some extent like an economist, historian, mathematician, physicist, technologist, biologist. Or as a carpenter, a cook, a baker, a nurse. Although this will differ per type of education in terms of depth, the idea seems justified that profound knowledge of pivotal issues facilitates teachers' potential to choose the subject matter that introduces and initiates students into the subject (cf. Fraser, 2005, p. 2). At the same time, this kind of teaching helps to achieve goals such as developing critical ability, creativity, and discovering both the value and the relativity

of science and scientific statements. Palmer puts it, again, succinctly:

> Passion for the subject propels that subject, not the teacher, into the centre of the learning circle - and when a great thing is in their midst, students have direct access to the energy of learning and of life.
>
> A subject-centered lesson is not one in which students are ignored. Such a classroom honors one of the most vital needs our students have: to be introduced to a world larger than their own experiences and egos, a world that expands their personal boundaries and enlarges their sense of community. This is why students often describe great teachers as people who 'bring to life' things that the students had never heard of, offering them an encounter with otherness that brings the students to life as well (1998, p. 122).

The aptly selected 'great thing in their midst' may well arouse students' interest and be meaningful in its own right and from the point of view of students' context. The first and second design principle, less is more and using pivotal issues, are obviously interdependent. The Palmer quotation above bridges these two with the next one.

PRINCIPLE 3: AUTHENTIC AND UN-MEDIATED

The third, fourth and fifth principles cover the way in which the content is dealt with. Ideally, this is close to reality in nature and culture. If something is lifelike, there is also life in it. Only where this is not possible, often for practical or ethical reasons, a medium is needed quite literally between content and learner. A phenomenon speaks more than its representation in 2D. That is why study trips abroad are, in principle, preferable to a book about cultures. That is why a real plant is better than a picture. That's why a good practical session is often better than telling about it. That's why a real painting in a castle or museum is better than a reproduction. That's why a visit to or by a veteran or victim is more penetrating than pure text. But often authentic content is not possible. Then it is important to look for the best possible replacement, although in a certain sense it remains fake. With authentic content it is easier than with a representation of it to get rid of the 'ordinary', the 'self-evident', the taken-for-granted. An authentic content usually

appeals more to the senses, appeals more to curiosity and empathy and care (also for 'materials') and invites to foster connections, both with this authentic content and with the teacher and the other pupils.

An important point related to using authentic phenomena is that they usually involve much more than just one discipline (see also chapter 2). This makes the connection with other subjects self-evident and it is up to the pedagogical-didactical wisdom and craftsmanship of the teacher to what extent he makes these connections and in what way. Both the discipline with its lens and phenomenon (in which more than one discipline always comes to the fore) have a right to exist. This also means that no greater contradiction between subject-based and project-based education should be made than is necessary. As a pupil's age and knowledge increase, the depth of knowledge of the subject matter will have to be greater. But that includes rather than excludes the search for authentic contexts, phenomena, issues and content.

PRINCIPLE 4: ATTENTION

In order to do more with less and in order to do justice to an authentic content, and allow it to fully express itself, attention is needed, a full presence, an attentiveness. At its deepest it is an expression of love and respect for the other as an 'opposite'[45]. An opposite as something that comes to us from God's creation or culture and for that reason is worthwhile and therefore worth the trouble. Bavinck says this: 'In all learning awareness, interest, love are needed; ignorance breeds contempt, one learns only in truth what one loves in the depths of one's soul' (1901, p. 26).

It is fitting that the contents of the subject speak for themselves. Our stories, as an instructor, are necessary here and there, but first and foremost there should be a "real dialogue" (Pike, 2013, p. 120), with open questions to which even the teacher does not know the exact answer in advance. Attention should therefore be paid, for the sake of clarity, not only to the student, but also to the 'thing' at hand, the subject. That takes time, and that is why it is no longer a matter of covering as much as possible. Not to mention how (in)effective

that is when it comes to remembering and understanding, let alone appreciating and knowing in the sense mentioned in chapter 2. Slow education goes hand in hand with slow questions (cf. principle 1 and Biesta, 2018, p. 25) and an unpolished reality. If, for example, practical work is looked at in this way, fieldwork, sometimes everything that does not fit neatly into the theory is cut away or ignored. Then wonder and awe, which cannot be programmed a priori but can be destroyed effortlessly, become almost impossible. Principle 4 therefore ties in with 1, 2 and 3.

PRINCIPLE 5: APPROACHING LEARNERS WHOLISTICALLY

If justice is done to the above principles, then the whole human being should be involved in the learning and teaching process. Often, however, the day-to-day teaching humdrum is too much about cognition and too much about what is easy to express in numbers. People sometimes talk about head, heart and hands. Perhaps that should be reversed in heart, hands and head, to compensate for the emphasis on cognition, but in any case the whole human being is involved. That is why cognitive, affective and psychomotor goals belong together. For the same reason, though technical and moral components can be distinguished, both are vital. Therefore, the well-being of the soul is not in opposition to the well-being of the mind and the body, or vice versa. That is why there are five senses or even a sixth that are allowed to participate in teaching and learning processes.

Skills

I would like to illustrate what is said above by focussing on one issue, skills development, precisely because principle 3, 4 and 5 must serve to give shape to what came up in 1 and 2. Many subjects as we know them in school curricula contain skill objectives. Skills that need to be trained and (sometimes endlessly) practiced. Training, repetition, practice is often necessary. That is not always fun, but can be very useful. This applies to creative subjects, such as music and drawing, but also to learning to read longer texts or making a summary. How can we do justice to principles 1 to 4 as much as possible?

The real point here is not to isolate skills (too much). Do not leave lessons that are meant to train skills without real (authentic) content and choose this content consciously[46]. Let hands, head and heart go together as much as possible. Don't just make a certain connection between two pieces of wood, but as part of a birdhouse that can be placed in the garden of a nursing home. Don't just do pronunciation exercises, but with phrases or texts that may do something in terms of content, that have the potential for formation. Not just long rows of dry sums in an automated system just because a certain test has to be passed, but connected to something where a clear relationship with the profession can be found[47]. Don't start with a stave with random notes, but with a simple song. A principle whose application requires creativity - the which may flourish if used regularly.

PRINCIPLE 6: CULTIVATING SIGNS OF HOPE

The two final and explicitly Christian principles are integral to how design principles one through five work out, these themselves stemming from a view of reality and pedagogy that seeks to draw from biblical notions. Principle 6 states that the biblical testimony about hope, salvage, and salvation should resonate wherever possible.

Signs of hope include stories in which salvation and help play a role, in which people do something positive, in the sense of loving their neighbour and to some extent of self-sacrifice. Also when justice is done in the midst of injustice, or when something heals and counteracts the disruptive effect of sin and evil. So hope can also play a role in disciplines such as biology, physics and chemistry, and geography.

At the same time this is always only partly the case. In the end, hope is not there because people or their techniques get something done, but because God does not let go of this world (Belgian Confession, article 13) and history ends in restoration. The reality as we experience it in all the chaos, despair and sin, which can also be recognized in the brokenness of phenomena, groans for salvation (for Romans 8). Cultivating hope cannot be done without Christ who is the Hope of all who believe in Him (1 Timothy 1 verse 1). Sometimes this is also a clear motive in certain persons of the discipline or its history. That should certainly get attention in the classroom. Attention to what is 'lovely and

of good report' (Philippians 4 verse 8), the aesthetics, is also coloured by hope and expectation. It literally or figuratively shows something other than disharmony and can therefore be a criterion for the choice of subject matter content.

PRINCIPLE 7: WEEDING AND PRUNING

Principle 7 is the counterpart of principle 6. This is about weeding 'thorns and thistles' (Genesis 3) and careful pruning; an imagery that also has biblical roots in, for example, John 15. Sin has perverted creation and cultural work. This manifests itself in every time, culture and subculture in its own way. A task of Christian education in general and of every department and teacher is to identify where that is the case right here and now, and to pay attention to it in the choice of goals, content, instructional strategies, and so on. It is not important in the first place whether one expects those thistles to be definitively removed, but what our Godly vocation now demands. With Groen van Prinsterer (1858, pp. 139-140), this calls for a true profession both within and outside Christian circles, of which is true that profession often means 'to come out in favour of the truth at the point where the defence is difficult'.

Opposing wrong tendencies

Through the spectacles of subject matter and pedagogy, and also from the goals and ideals that a Christian teacher wants to promote, more specifically I think of weeding dominant a-Christian, non-Christian and anti-Christian trends. That is regardless of where they are found. At this point self-criticism as well as a critical view of Christian subcultures in one's part of the world can certainly not be lacking, but that is rather where we should start. I will mention just some of these trends:

1. Separation between Sunday and Monday[48]. The question is how often a Christian leaves his faith at home during the working week. Non-Christians usually seem to take their faith with them 24/7.
2. This is related to what Calvin calls a 'beastly love for the world' (Institution III,9,1). Within certain subjects and when dealing with certain themes attention can be drawn on how to 'contemplate the life to come' and 'how to use the present life and its tools' (Institution, book III, chapters 9 and 10).

3. Instrumentalism and functionalism. This threatens, for example, teaching modern foreign languages, if not only the function of communication is emphasized, but the language is primarily used to serve one's own interests. Language is then primarily a means of telling what you want, and not of learning from others and other cultures and thereby being allowed to explore a part of God's reality. Literature and culture are integral to learning languages, in every type of education, elements of which should be incorporated wisely.
4. A practical deism in, in particular, science and geography. Where natural laws are insufficiently seen, experienced, and named in terms of ordinances that bear witness to God's faithfulness, as His customs, there is in fact, at best, a deist worldview. That is immanent, apart from paying lip service to the One who made and set the clocks in motion.
5. The (often implicit) pretensions of scientific and technological knowledge and ability.
6. Evolutionary thinking. This comes to the fore in many areas of life and also influences the formation of theories and points of view in a range of subjects.

Summary:

When designing a lesson it is possible to approach subject matter and pedagogy from a Christian perspective. A design diamond consisting of seven principles help doing so:

1. Less is more, more by less.
2. Use pivotal moments/insights, core issues, of the discipline.
3. Use authentic and 'un-mediated' phenomena wherever possible.
4. Cultivate, nurture attention.
5. Aim for involving the whole person: heart, hands, head. Not just bare skills or just cognitive work
6. Be on the look-out for signs of hope, salvation, tokens of redemption, while awaiting final restoration after the day of judgment.
7. Go against current (sub)cultural trends where and when these subvert Christian values and Biblical truths.

EXCURSUS 3

Christian accents in disciplines

Geography

- God also sustains everything.
- Relating the local living environment to the larger, ultimately global system of interdependence relationships (antidote to, for example, the absolutization of one's own position, and arrogance, because much can also be done thanks to others, to 'the rest');
- Creating empathy, compassion with people in places where it is difficult: Sahel, poverty, etc.;
- global inequality;
- 'educate all the peoples';
- adaptation to the environment (versatility of people, creativity, etc. as a gift of God);
- Babel, Revelation (all languages and peoples);
- greatness of inanimate nature in/on the earth's surface, variety;
- cultivate;
- ecological footprint/environment/greenhouse effect etc;
- cycles (day-night, seasons, water cycle), as an expression of God's care and way in which He provides;
- the weather;
- Biblical geography, Israel.

Biology

- God's sustenance;
- complexity: in the development of organisms in their course of life;
- cohesion: cycles, chains;
- death and destruction, eating and being eaten;
- evolutionary thinking;
- God provides for things, satisfies all that lives;

- domesticate;
- domestication of animals and plants in the context of production.

Economy

- stewardship, and what that is;
- dealing with money, resources, scarce goods, honesty and fairness;
- how to use economic laws (in this world where sin is pervertingly present) in such a way that they promote the good, true, clean (formulation of Plato);
- quantify needs, etc. in value and then rank them, etc: what to think of that;
- the value of what cannot be quantified (love, care, beauty in whatever);
- enjoyment and enough;
- slavery in modern forms;
- lending, usury, giving to others. Who owns..;
- calculating the costs: risk, overspending, future generations;
- entrepreneurship, creativity;
- large scale and the human scale;
- systems/abstraction/pretence of completeness and individuals who do not always fit into a system;
- reduction of humans to factors of production, etc. and to numbers.

History

- cycle, cause, effect, linear - cyclic;
- perspective, truth, relativism (place and place orientation);
- empathy, understanding the other from within (without approval or disapproval);
- 'in the present lies the past, in the now what will become';
- creation, fall, redemption, restoration;

- revelation (cyclic and increasing, concentric);
- power, authority, tasks of government (and what not);
- The place we have, here (geography) and now (history);
- Human scales, not superhuman;
- God's hand, providence, He provides for things;
- His Kingship;
- His patience, longsuffering;
- mission and spreading of the Christian faith;
- persecution and suffering.

Natural sciences (physics, chemistry)

- God's sustenance;
- complexity; marvel and wonder
- God's hand and mouth do not contradict each other (quote attributed to Galilei);
- evolutionary thinking;
- pretensions of scientific and technological knowledge and ability, manufacturability;
- a practical deism in this profession; the wound-up clock that is ticking;
- is methodic atheism wrong
- anthropic principle;
- reduction to one aspect, reduction to what is empirically determinable, and then often a (verbally confessed as unauthorized) generalization to the rest of life (an 'ism');
- orderliness, beauty;
- natural sciences fundamentally describe rather than explain, give names, terms to phenomena;
- ethical aspects;
- cause-effect chains;
- depletion of resources, extinction of species, unbridled application of what is possible.

Languages

- God makes himself known in language;
- the tongue to praise God;
- the Logos, creative speech;
- names carry meaning;
- communicate;
- beauty;
- feel/take the perspective of others (narrative perspectives, etc.);
- accuracy, critical reading/listening;
- the ninth commandment, manipulate, counter injustice through words;
- suggestiveness of language, which has positive and negative sides;
- diversity of languages (and cultures);
- Babel, Revelation (all languages and peoples);
- Psalms, James, Philippians.

Mathematics

- truth;
- discover what God has put in creation and still maintains;
- logic, non-contradiction;
- order;
- clarity in om/description;
- complexity;
- description of phenomena, laws ('order', Jeremiah 33) in physical reality using mathematics, the 'mechanization of the worldview' (Dijksterhuis 1950);
- numbers and space;
- literally counting aloud to 1000, greatness and largeness of numbers;
- incomprehensibility of astronomical and microscopic quantities.

CHAPTER 8

THE TEACHING PRACTICE: (RE)DESIGNING LESSONS

In the previous chapter, with the contents of chapters 1 through 6 in mind, we identified seven design principles for a lesson in which the choices in pedagogy and in dealing with subject matter attempt to do justice to Christian teaching. However, we do not yet have a lesson with these principles. Another creative step is needed to get from the principles to a concrete lesson, series of lessons, module and the like. This requires not only creativity but also the necessary craftsmanship and mastery. You could compare it to what a master chef does. With the ingredients at his disposal, he prepares a meal that meets the culinary rules. If you write down exactly what he does, then you have the recipe for it. However, the pure execution of the recipe does not make someone a master chef who is on top of the craft. As Tomlinson and Imbeau say: 'If we only learn methods, we are tied to those methods, but if we learn principles, we can develop our methods' (2010, p. 13).

Teaching is also a craft, as many (Christian and non-Christian) authors say[49]. Sennett, who wrote a seminal work on crafts (2008), says a few enlightening things about it. 'Thinking and feeling are contained within the process of making' (Sennett, 2008, p. 7). 'The carpenter, lab technician, and conductor are all craftsman because they are dedicated to good work for its own sake' (p. 20). 'All craftsmanship is quality-driven work; Plato formulated this aim as the arete, the standard of excellence, implicit in any act: the aspiration for quality will drive a craftsman to improve, to get better rather than get by' (p. 24). 'Much of the knowledge craftsmen possess is tacit knowledge - people know how to do something but they cannot put what they know into words' (p. 94). 'Work that is neither amateur nor virtuoso. This middle ground of work is craftsmanship' (p. 117). 'The good craftsman is a poor salesman,

absorbed in doing something well, unable to explain the values of what he or she is doing' (p. 117). So, the design process starts with being (or wanting to be) such a craftsman, namely a dedicated teacher, who works, learns, improves, and so goes for craftsmanlike quality.

The following tips can help you get started to (re)design your own lessons as a teacher.

- **Start with what you would like to achieve.**
  In general, a 'backward design' is recommended[50]. Start with your goals and ideals (in relation to the situation at the beginning) and look for the right content in your subject (principles 1, 2, 6 and 7). If you listen to it carefully, the course content indicates the direction of the how (principles 3, 4 and 5), and suggests teaching methods and means. At the same time, a powerful phenomenon or issue is eloquent itself and often evokes or suggests a corresponding ideal and goals that can be achieved by using it. Think of a poem, a physical phenomenon, a landscape, an ecosystem; something that also caught your own eye as a teacher. In that case too you will (re)design a lesson from there and move towards students and the organisation of your lessons.

- **Start where you are now.**
  In Van Gelder's didactic model (see chapter 3), the situation at the beginning of students is crucial. Envisage yourself as a student who takes a new step. It is possible that your starting situation is such that you can best fit in with the textbook. Where does your textbook make it possible to do more with the seven design principles? Go through all of them and apply them to a certain class, subject, lesson or lesson series that you are going to teach in due time. Spend the time in between now and then studying, praying, consulting and working with colleagues, and putting things down on paper. Start small and start where you are now.

- **Don't do too much at once[51].**
  Less is more. Especially if you are teaching full-time, it is not feasible to revisit all lessons, let alone change them (drastically). Usually a

relatively small change already feels quite a step when it comes to teaching from a Christian perspective. It is better to change one of the 26 lessons you teach every week (for example) and keep it that way, than to stop after a while or, even worse, do something halfheartedly, so that it fails.

- **Consider all seven design principles.**
  For each design principle, think about what you can do (more) to realise it[52]. It is not always necessary or possible to work on all of them at the same time. On the other hand - and that's great - they are interrelated and you will notice that when you work with one of them, others also come into the picture. It often adds to a stimulating and unifying atmosphere when colleagues join in.

- **Identify opportunities to exert influence.**
  A teacher has much more influence on the learning outcomes of students than the school or team he is in (e.g. Marzano, 2003, 2007). A good teacher in an average or bad school can achieve a lot. (Conversely, a bad teacher can ruin a lot...) Maybe the time-table, the programme of testing, obligatory department-wide tests, the minimum number of written tests and the like are less compelling than you assume.

- **If possible, do some research on the change you are trying out.**
  Many good teachers turn out to do this as a matter of fact. A craftsman loves his work but also looks at it critically. Research can be extensive and done with the help of others, such as colleagues, advisors, or the research centre of a university. But it can also remain relatively small, as action research, giving you more insight into the effects of your teaching.

Summary chapter 8:

When (re)designing a lesson (series) considering the following points may help

1. Think about what you would ultimately like to achieve.
2. Accept that the situation is as it is now, and start from here.
3. Less is more: Don't do too much at once.
4. Consider all seven design principles, and decide which one(s) to use..
5. Focus on things you can actually influence.
6. Investigate your changes.

CHAPTER 9

SKETCH OF A LESSON

To go from design principles to a lesson, a creative step is needed. In this chapter I will give one example of an English class (English as a foreign language, EFL) that does justice to many of the design principles. I chose this topic only because I taught it myself as part of an entire course on English culture and history. (It should be noted that it is not meant to be derogatory towards Britons, and probably for most nations on earth similar content could be found.) I start by describing the 'bare' subject content. It is a nice exercise to first think about how the design principles can be applied, so that a lesson is created for, say, vmbo class 3 gt [i.e. vocational education, pupils aged 15]. After the description I offer a sketchy outline of such a lesson. Finally, I briefly show how the design principles decisively informed the set-up.

SUBJECT MATTER

A telegram from Lord Kitchener in the Second Boer War (1899-1902) to his superiors in London. The British then fought against the South African farmers. 'I fear there is little doubt the war will now go on for considerable time unless stronger measures are taken ... Under the circumstances I strongly urge sending away wives and families and settling them somewhere else. Some such unexpected measure on our part is in my opinion essential to bring war to a rapid end' (text 1). He was given permission to set up concentration camps. This led to many civilian victims: 'The abhorrent conditions in these camps caused the death of 4 177 women, 22 074 children under sixteen and 1 676 men, mainly those too old to be on command' (text 2).

At a certain point the following took place in these camps with and around a young girl, 'Lizzie Van Zyl who died in the Bloemfontein concentration camp, 1902'. This is the story: 'She was a frail, weak little child in desperate need of good care. Yet, because her mother was one of the "undesirables" due to the fact that her father neither surrendered nor betrayed his people, Lizzie was placed on the lowest rations and so perished with hunger that, after a month in the camp, she was transferred to the new small hospital. Here she was treated harshly. The English disposed doctor and his nurses did not understand her language and, as she could not speak English, labeled her an idiot although she was mentally fit and normal. One day she dejectedly started calling for her mother, when a Mrs. Botha walked over to her to console her. She was just telling the child that she would soon see her mother again, when she was brusquely interrupted by one of the nurses who told her not to interfere with the child as she was a nuisance' (text 3). Shortly after that Lizzie died of typhoid, 7 years old.

SKETCH OF A POSSIBLE LESSON

Once the content of the lesson has been chosen, the content of the exact lesson still depends on the other parts of Van Gelder's didactic model (chapter 3). That is why I will sketch these first. Goals for English could be: expand vocabulary, improve reading, writing, listening and speaking skills. Wider goals could be: broadening the horizon, increasing critical ability. But also: promoting compassion and empathy, thinking about justice and fairness and mercy, dealing with a conflict of conscience in your work or life. The initial situation of the pupils includes: no prior knowledge of the Boer War, lower level of English than in these texts.

The start of the lesson, which can largely be done in simple English: show the two pictures of Kitchener and Lizzie and involve students in thought-sharing. Approximately when were the pictures taken? What can be the relationship between the two pictures? What do you think happened? What do you think should happen to the malnourished person?
Then you add information: who the girl is, age, environment with a different language, without mother.
Then you make a number of expert groups of three pupils around picture 1 with the accompanying texts 1 and 2 and a number of expert groups of three pupils around picture 2 and text 3. You give them the texts and a glossary. First, for each expert group, they have to discuss what it actually says and write it down briefly in their own words. Then they have to discuss what they think of it and why. If they don't have the words for that yet, either give them stock phrases or refer to a vocabulary book. As a teacher you walk around and give feedback on process, you emphasize the 'why'.
Then you let the students tell each other their part of the total story in groups of two or four. They can use their notes for this.
By that time, the lesson will be over (in the Netherlands often 45 minutes at most). As homework you let them learn a selection of the words (the high-frequency ones, in particular) and think about what they would like to say to Kitchener and to the English nurse. You will continue with that in the next lesson.

THE LESSON AND THE DESIGN PRINCIPLES

The texts are too difficult for most students in vmbo class 3 gt. For various reasons it will still be possible to do something with it: The theme of suffering and (not) alleviating it (principle 7) and the horror will be able to catch them (principles 3, 4 and 5), as well as the unexpected fact that it was the British who caused this with their politics (concentration camps are connoted with Germans). There is a message of hope (principle 6) to be distilled with the lady who wanted to help Lizzie (Emily Hobhouse) and the one who made this story known to the world, in order to influence public opinion and create better conditions in the concentration camps. That suffering and that hope can also be

brought closeby, by discussing what we, students, school, can do now about such suffering (also principle 7), and how we do it when it comes close or possibly further afield (principles 3, 4 and 5).
Principle 1 can be seen again, because a lot is done with relatively little material. That material has been chosen in such a way, that it says something about England and British history, as well as South African history, and about a phenomenon that still occurs: the concentration camps. This makes it easy to make a link to contemporary camps, to the Second World War. It also says something about power and fairness, justice and mercy. In other words: all sorts of possibilities open up naturally from this pivotal point (principle 2). Yet, it still is a language lesson.

CHAPTER 10

CONCLUSION AND LOOKING AHEAD

In the previous chapters, seven subject-related design principles have been formulated on the basis of considerations of various kinds (ontological, epistemological, pedagogic, systematic) and from the sources of the Bible, pedagogical thinkers and practitioners, and empirical research. This required a creative leap - and of these seven principles it is possible to look back at how the underlying considerations and sources play a role. The step from design principles to a real life subject lesson given from a Christian perspective is once again creative and a lesson has been sketched as an example. What has been said at the beginning about the person of the teacher as a Christian remains important. The challenge for the teacher is to give subject lessons ever more deeply from a Christian perspective and to develop this further as a good craftsman.

This also brings us to what research will be done on 'school subjects and pedagogy'. A number of core elements are important:
First of all, it concerns research into how the seven principles work:

- Do they provide teachers in the various forms of education with sufficient guidance and a sense of direction?
- What will the lessons look like and how can we make them fruitful for other teachers?
- How does a learning process of teachers proceed if they work alone or in groups (such as in professional learning communities) for a longer period of time?
- How do subject lessons that are based on the seven principles affect students? To what extent do they experience a clear(er) integration of a Christian perspective with the subject content?

Are statements such as 'What does this subject have to do with faith or being a Christian' less common?

Related to the above, there are some other areas in which research is desirable and sometimes has already started.

- We are conducting research into the methodology of 'whatiflearning'. This Anglo-Saxon method contains some steps to look at lessons differently: 'What if...? We want to investigate this especially in primary education.
- In addition, I am interested in the connection of the teaching methodology of modern foreign languages with, and the training of language teachers from, a Christian perspective.
- From a broader perspective all the elements of Van Gelder's didactic model (see chapter 3) play a role in pedagogy and school subjects, including the evaluation and testing element. An important issue (given the neoliberal accountability emphasis currently) is how to look at various forms of assessment from a Christian perspective.
- Also the background of the design principles plays a role and the extent to which sources as mentioned in this book and as used within Driestar Christian University can be fruitful. One hypothesis is that at a basic level the educational philosophers from '*Vital ideals, exemplary practices'* part I and II (Murre et al., 2012, 2014) and empirical-analytical educational and pedagogical research, as well as the biographies and fiction mentioned above, address the same themes and show similar practices as being desirable. Research into this can influence the formulation and foundation of the design principles mentioned in this book.
- Lastly, it is an interesting question to what extent the approach in this book, together with what is contained in *The Essences of Christian Teaching* (De Muynck et al, 2017) and the *Handbook of Christian Teaching* (De Muynck et al., to be published in 2020), also gives guidance to other current questions and issues, such as: personalized learning, what to do with Biesta's three-way division (Biesta, 2014), overloadedness (a complaint of many decades and longer even), heterogeneous groups and schools

or more homogeneous, the profile of the ideal teacher or leader in education, the choice of subject matter and pedagogy, the relationship between vocational education and more general formation, and whether the curriculum ought to be organised according to subjects (disciplines) or multidisciplinary areas of learning.

FINALLY

What I have outlined in this book is not meant to be a full and coherent system (see chapter 4). It contains clusters of relations, of points to pay attention to, of possibilities. Thinking about all of these simultaneously is not possible. You don't have to work on all at the same time. What one point fails to address is highlighted by another one. They are interrelated. Also, as a teacher you are a limited being. That may make you humble, as you walk life's path together with students. And cheerful, when you do it together with other teachers. What you don't do, maybe someone else does. In this way, every teacher opens up something of abundance of a subject that got him hooked, as well as sin prevalent in it and recovery and ultimately redemption. Regardless of whether it is forestry, carpentry, mathematics, a social subject or languages. Or something else. While this generates pressure, relaxation is also possible, because in the end whether students grow and mature is not up to us. We are instruments at best. We 'plow in hope' (1 Corinthians 9 verse 10) and always have good courage, expecting God's blessing and praying daily for forgivenes through Christ.

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VOETNOTEN

1 The Dutch term generally used is 'didactiek'. It is a broad term, even though it is sometimes limited to teaching methods, a.k.a. instructional strategies. 'Didactiek' can be translated into English in different ways. In the continental European tradition 'didactics' is often used. This, however, in English-speaking countries seems to be too narrow and have slightly negative connotations. The English cognate 'pedagogy' in educational speech usually means 'didactiek' (e.g. Loughran, 2010, p. 36v) and is also used for subject methodology or *didactics*, e.g. in the term Pedagogical Content Knowledge (Shulman, 1986, 1987). In this book I mostly use 'pedagogy', as the apparently the more apt term. Unfortunately, this has other drawbacks, as its Dutch (and more generally: Germanic) cognate 'pedagogiek' is almost always limited to the relational side of education and teaching, implying adults and youngsters in asymmetrical relationships. Neither is 'pedagogiek' confined to school environments, but it is also used for raising children in families, etcetera. Here, both pedagogy and didactics are used interchangeably in a descriptive, non-pejorative, broad meaning, relating to education in school contexts. To make matters worse, there are all kinds of related and (partially) overlapping terms, such as 'instructional design'.

2 It is important that God works repentance and saving faith in the Lord Jesus Christ by using 'means'. The means of education and teaching, which He gave in His providence must therefore be used well. (By analogy with what Hellenbroek (1658-1731) says in his booklet to catechese youngsters, a book widely used within orthodox protestant denominations in the Netherlands (2015, s.v.).

3 In the 'Handbook of Christian Teaching', which is currently (March 2019) being written by the Research Centre of Driestar Christian University, some aspects of it will be highlighted in some more detail. Part of the material offered here will be included in the handbook too.

4 On 11 April 2019 I delivered my inaugural address. This consisted of a selection of parts from this book with a number of examples from lessons. In this long version I discuss a number of things in more detail. In this English version the text is a translation of the Dutch 2019 text. Sometimes a few things have been changed or added to make it more understandable to an international readership.

5 I mention a few: teaching, subject matter, pedagogy, a Christian perspective, learning objectives, teaching practice, teaching, learning, ideals, pupils, parents, school, leaders, sources, action, competence, development, professionalism, preparation for society, formation, quality, differences, differentiation, uniqueness, appropriation of tradition, ditto of 21st century skills, Christians teaching or Christian teaching. There is a good deal of literature available on these concepts, from within and outside Christian circles, and from within and outside the Netherlands.

6 The relationship with the personal faith of the teacher, the relationship between the common grace in the teaching as such and the special saving grace for which God can use teaching, and how notions such as the covenant of grace and (degrees in) election play a role in all this, are separate themes that I will not elaborate on here. What I mainly focus on is what a Christian teacher can do to make his Christian perspective concrete in the subject matter lessons. It resembles what is written in the Epistle of James: "But, shall someone say: Thou hast faith, and I have the works. Show me your faith from your works, and I will show you my faith from my works' (chapter 2 verse 18).

7 Think of the Ten Commandments and many parts of the Gospels and Apostolic Epistles. The Heidelberg Catechism pays much attention to them from 'The Lord's Day 32' onwards.
8 After all, pedagogy and teaching can only be there because knowledge of this reality is possible. Palmer, e.g., says the following of teaching and lessons in which a 'community of truth' is pursued: 'This model of community reaches deeper, into ontology and epistemology - into assumptions about the nature of reality and how we know it - on which all education is built' (1998, p. 95).
9 A similar relationship applies between ontology, epistemology and research methodology. The latter, too, is always based on ontological and epistemological beliefs (see Murre, 2017a, p. 59f). What is stated about this in the following parts of the text therefore also plays a role in the research carried out by the Research Centre of school subjects and pedagogy.
10 The relationship between subject matter, in terms of 'what content should be learnt', and reality is complicated. They do not coincide, but there is an intricate relationship (see for example De Muynck, 2012, p. 8, and also chapter 7). For this book, the main thing is that the subject matter is derived from or, as a matter of fact, is part of reality. This implies that opinions and assumptions about reality matter.
11 The terms object and subject could be criticised. I understand object here mainly as that which is outside the knowing subject, without regarding it as an (inferior) 'thing', and I suspect that something similar applies to Bavinck. In that sense one might even speak of subject-subject relationships.
12 See also note 1. Nowadays 'Didactiek', 'didactics' are used mostly. In earlier days the term 'pedagogy' was used in Dutch and German in the broader sense, as in Herbart's 'Umriss *pädagogischer* Vorlesungen' (1835) and Bavinck's '*Paedagogic* Principles' (1904).
13 Fortunately, learning also takes place without being specifically taught, or at least not in a formal (school) setting. However, pedagogy is about the combination of both.
14 In this book I do not distinguish between goals and ideals. Goals may have the connotation of always being measurable and specific or only cognitive. Ideals can be seen as vague and by definition unattainable. I prefer to keep them closely together. See for example Biesta (2010b, 2012) and De Ruyter (2006).
15 More recent models, such as the curricular spiderweb of Van den Akker (Van den Akker & Thijs, 2009, p. 14) or models around Assessment for Learning (Black & Wiliam, 1998; Black et al., 2003; William 2013), do not, in my opinion, yield fundamentally different views, although they sometimes rightly emphasise important parts, or elaborate on them.
16 Not to mention the relative freedom and responsibility that each pupil has as a human being, as a subject.
17 Several authors have written about this point. Piet Raes (2015) approaches it from a Roman Catholic point of view, Trevor Cooling (2010) mainly from an Anglican point of view. See also Bram de Muynck (2012, 2016, 2017), with whose approach I particularly agree.
18 Even though there is a fake specimen in Tianducheng in China of 108 meters high (Willems, 2013).
19 Cooling (2010) does give an answer to that, but that is beyond the scope of this chapter.
20 At the same time, it is also a craft. Perhaps that term is even better to use than a practice, because it evokes recognition more easily and is less abstract, while the aforementioned characteristics of a practice also belong to a craft. See further chapter 8.
21 On the difference and similarity between concepts such as faith, religion, worldview and the like, see Murre (2017a, s.v.) and the literature mentioned there. For the discussion here I make no distinction between them.
22 At the same time we should not slide towards postmodern relativism, nor a

hermeneutics that takes 'man today' into account more than the intentions of the author and the authority of God's Word and its claims over all areas of life.

23 The nature and knowability of reality and how to make choices about the subject matter. Other important issues related to this, such as the nature of goals and ideals, the relationship between child and teacher and what goes on within it, the composition, heterogeneity and degree of inclusiveness of classes, and how age and development of a pupil or student play a role in teaching, and so on, I touch upon only indirectly.

24 Examples of this in The Netherlands, from the start of the new millennium, are action-oriented working, output-oriented working, old or new learning, personalized learning, multimedia, media education, digital didactics (cf. Mayer, 2014). My intuition is that most of these newer contemporary issues can be approached from the classic questions and key points raised over a long history, and building on that they can get a more concrete focus relevant to the situation now. This requires a more extensive treatment than is possible in this book with the central question it endeavours to answer. See, for example, Steef de Bruijn's approach to skills from the first centuries after the beginning of the era as an answer to 21st-century skills (Bouw, 2014; De Bruijn & Van Dam, 2014).

25 This is, of course, somewhat artificial and rigid. There are books that exhibit characteristics of more than one of the mentioned kinds of sources, for example Day (2004), or from a Christian angle Van Brummelen (2009). I also leave out theological and philosophical sources.

26 The Dutch word is 'pedagoog'. It carries the same broad meaning as pedagogiek (see note 1), and translating it is equally tricky, even more so when used in a historical context. 'Educational thinker' comes close, as does 'educational philosopher' but both exclude the practical orientation that 'pedagogen' had. 'Pedagogen', however, were not purely practitioners. They thought, theorised, conceptualised their ideals of education. 'Educationalist', yet another term, to some implies scholarly, empirical research. That was not always done, at least not in the way educational sciences tend to do this. Using 'pedagogue' in native English contexts seems too negative, generally. In non-native English contexts it might work. In this text I mostly use educational thinker or philosopher, and then I am thinking of people such as Comenius, Pestalozzi, Herbart, Freinet, Montessori, Bavinck and the like.

27 See above, for what Bavinck said about this. The use of authors of all kinds of backgrounds can be seen as a tradition that goes back a very long time. Examples can be found with the church fathers, who defended this way of working by invoking the robbing of the Egyptians by the Israelites during their exodus, about 1450 BC; with Johannes Calvijn (1509-1564), who knew a lot about antiquity; and with Gisbertus Voetius (1589-1767), who quoted many (kinds of) sources in his inaugural address at the founding of Utrecht University in 1636. By way of illustration a quotation from Groen van Prinsterer (1801-1876) in a longer defence: 'We should, in the good sense of the word, be eclectics; acknowledging the authenticity of the metal, wherever it is present, by using a sound touchstone' (1924, p. 29).

28 An example with a critical reflection of research about direct instruction can be found in Davis (2018).

29 Objections have also been raised to this type of research: It should first or foremost be about the why and what-for, the purpose, of education. The pupil is not an object, but fundamentally a subject, with his own potential to act, his agency (see Biesta, 2007, 2010a, 2018 and the authors mentioned there). The approach to empirical research is too technical. In the real world in the classroom so many factors play a role

(see the chapter on systematisation) that a list or model has no practical value (cf. De Rooij, 2018, p. 231v). Research into 'what works' is wrongly inspired by double-blind randomised research that is commonplace in the medical world. (See for example the discussion on this in Hammersley 2007a, 2007b; Hargreaves, 2007a, 2007b). As measured by empirical-analytical research, only low-order goals from Bloom's taxonomy are concerned, whereas they should be high-order aims. I do not consider these objections valid enough to refer empirical-analytical research to the second or last rank, although it is important to take into account what the objections involve. Like any type of research, empirical-analytical research has its limitations and one of those limitations concerns statements about ideals and the desirability of certain goals of education. Pupils should not be seen as an object, nor should education be seen as a system in which a specific input inevitably leads to a corresponding and well-specified output. As far as I know, the latter is also not stated by anyone and resembles a 'straw man'; a caricature of an opponent.

30 The discussion about theatre and film in the Reformatorisch Dagblad in the autumn of 2018 adds another dimension to the issue of how to use educational films, if at all.

31 The Bible also contains many practical lessons for everyday life, think of the book of Proverbs (cf. Heino, 2015).

32 According to my observation, the various kinds of sources ultimately match miraculously. If so, then this is probably related to the fact that teaching is possible because of God's common grace, with which He does good to all (Psalm 145 verse 9, cf. chapter 5). It goes far too far for this book, but would be interesting to compare e.g. pedagogues (see note 26), empirical-analytical research, biographies and maybe even certain fiction (see also chapter 10).

33 Although at the same time it is a pity and perhaps a shame that space and architecture are often left unused. Even then there is a message. Here one can learn from many Christian schools abroad (i.e. outside The Netherlands).

34 This also fits in perfectly with Thiessen's approach, who speaks of 'teaching for commitment and critical openness' (1993, 2001; cf. Murre, 2018). Incidentally, the term 'critical openness' as something which Christian teachers are called to promote is also (already) used by Fowler (1987, p. 58).

35 Compare also Van Dyk's commentary on 'Bloom' from the point of view of the American situation (2000, p. 60f).

36 The pursuit of this is not possible in a direct sense. Humility, awe, happiness and the like, may possibly arise as a result of something else, but they are then a happy by-product, an 'epiphenomenon' (Murre, 2013). The indirect route is therefore also the most direct route.

37 They believe that teaching isn't complete until learning occurs and that learning is predicated on a teacher's thorough understanding of both content and his or her students.

38 It is important, of course, that the degree and depth will differ per type of education. A teacher in primary education will obviously differ from that a secondary teacher or a lecturer at a university of applied sciences (cf. Muynck et al, 2017).

39 'What impresses me about such teachers is that no particular set of teaching tricks or topics, much less a common personality type, epitomizes them.'

40 'While methods vary, the best teachers often try to create what we have come to call a 'natural critical learning environment. In that environment, people learn by confronting intriguing, beautiful, or important problems, authentic tasks that will challenge them to grapple with ideas, rethink their assumptions, and examine their mental models of reality.'

41 'Working within their disciplines, teachers best express their passions

not only by what they celebrate but also by what they choose to ignore. 'A man is rich', quoth Thoreau, 'in terms of the number of things he can afford to leave alone'. Passionate teachers put it thus: A teacher is wise in terms of that part of the curriculum he or she conscientiously chooses not to cover.'

42 An approach based on values requires a separate discussion, especially in the light of related concepts such as virtues or the biblical fruit of the Spirit. For this purpose I will suffice with the remark that (invisible) values impinge on (outwardly noticeable) behaviour, and that values cannot be taught in a vacuum, but that choices in pedagogy and subject matter, as expressed in the design principles, can be helpful in teaching values.

43 For this reason in a teacher education programme a module which covers the history of a subject is quite important.

44 Bavinck even goes so far as to say that 'In general, the genetic or historical order of each subject will be preferable' (1904c, p. 170). This seems to me to be too bold a statement for education as a whole. It does, however, illustrate the idea that there are nuclei of particular importance in the various subjects.

45 The word 'object' is too distant, co-subject perhaps does too little justice to the difference between people (who know themselves as subjects) and other creatures (animals, plants, inanimate nature). See also what has been said above under chapter 2.

46 See Murre (2014) for an example of language skills training in English that uses content which is relevant and evocative in itself.

47 Actually, with these ways of practicing we are back to the corruption of Herbart's method by the neoherbartians in the 19th century. It is not incomprehensible that reform movements arose in opposition to this (cf. Bakker et al., 2006).

48 A divide between devotion or Bible lesson and the rest of the day is not much different.

49 This is not to say that other metaphors could not be enlightening either. There are many in use in literature. I mention only the midwife of Socrates (who liberates from ignorance); C.S. Lewis who talks about irrigating deserts (Pike, 2013, p. 47); the 'pedagogical quintet' of Ter Horst: the teacher as treasurer, gardener, shepherd, guide and priest (Ter Horst, 1997); and of Van Brummelen's the teacher as artist & technician, facilitator, storyteller, craftsperson, steward, priest, shepherd/guide (2009). These metaphors usually each have their own history and 'Wirkungsgeschichte' (cf. Lakoff & Johnson, 2008).

50 See e.g. Richards and Rodgers (2014) for a discussion of forward, central and backward design. They focus on the acquisition of a second language, but the principles are generally valid. Other authors mentioned in this booklet also recommend this design strategy (e.g. Bain, 2004, p. 114).

51 This also means something for leaders who want to stimulate teachers to teach more subject lessons from a Christian perspective. If the 'costs' for a teacher are too high, innovations fail. See, for example, Janssen et al. (2016, p. 78f) and a flood of literature on 'innovations' and 'implementations'. For managers, it is important where the zone of proximal development is for each individual teacher. In any case, a teacher will have to know what to do and how to do it, will have to find it important, and will have to be able to do it with relatively little effort, given the (often overwhelming) rest of the work and the expectations he has to live up to. This also implies that facilitating this in terms of organisation and paid time can be crucial to get things up and running - an often necessary, though not sufficient condition.

52 Here are a few examples: Where does this lesson content connect to God, faith, the Bible, questions of life, ethical issues, today's world? What does it have to do with building and preserving, pruning, self-criticism, evil, guilt, rebellion? Which values can I make explicit and which practical

application can be thought of? Which terms do I use in class for the things above?