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Abstract

The literature reveals that up to half of all evidence-based programmes introduced in schools will fail to reach their expected outcomes due to poor implementation. Addressing the reasons why school change works in some schools and not in others is therefore important. It is argued in this article that if a school’s readiness and capacity for improvement is identified, it may predict the outcome of a future change initiative when adequate support is provided. Drawing on the Burke-Litwin model of organisational change, supported by theory and previous research from school improvement and prevention practice, we aim to present an overview of factors to take into consideration before new change initiatives are implemented in school settings. These factors exist on the external, school or individual level and have either a transformational or transactional nature. Yet factors at all of these levels may influence a school’s capacity and readiness to improve.

Keywords: improving schools, organisational change, capacity building, readiness, implementation

Introduction

Over the last decade there has been an increasing focus in Norway on evidence-based programmes to prevent and reduce problem behaviour. School-wide approaches like the Respect programme, the LP-model, PALS, Zero and the Olweus Anti-Bullying programme have all been found to have a documented effect (Nordahl, Gravrok, Knudsmoen, Larsen & Rørnes, 2006). These programmes are recommended to Norwegian schools by the Norwegian Directorate of Education and Training (NDET), the Executive Agency for the Ministry of Education and Research both generally (Nordahl et al., 2006) and as part of a five-year initiative to improve students’ academic and social Learning Environment (Norwegian Directorate of Education and Training, 2009). However, although found effective, the programmes are implemented with variable degrees of success (Ertesvåg, Roland, Vaaland, Størksen & Veland, in press; Larsen & Samdal, 2007; Kallestad & Olweus, 2003; Midthassel & Ertesvåg, 2008; Sørlie, Ogden, Solholm & Røyshus Orseth, 2010). Moving evidence-based practice into real-world settings is immensely complicated. Internationally, there is a general consensus in the field that school-wide programmes implemented in schools outside of efficacy trials or highly controlled research studies are typically not implemented in a high quality way (e.g. Domitrovich et al. 2008; Dusenbury, Brannigan, Hansen, Walsh & Falco, 2005;
Gotfredson & Gotfredson, 2002; Sørlie et al. 2010). Given this, a major challenge to programme developers, national as well as international, is how we can improve the implementation quality of school-wide programmes. We need to keep in mind that the ultimate aim of school-wide programmes is that they need to make a difference for students in real school settings, not just in trials to document their effect.

Given the challenges discussed above, this paper, as part of a larger study, aims to discuss factors that may affect the quality of implementation of school-wide programmes. Although some Norwegian studies have addressed the implementation of school-wide programmes, they seem to have only focused on one or a few factors affecting implementation, like leadership (e.g. Ertesvåg & Roland, resubmitted; Ertesvåg et al. in press, Larsen, 2005) and the development of a collective culture (Ertesvåg et al., in press, Larsen & Samdal, 2007). Given this, the present paper aims to identify key factors affecting a school’s readiness and capacity to implement school-wide programmes based on the theoretical framework provided. The findings will, among other information, form the basis for developing an assessment system for identifying a school’s readiness and capacity to improve. This may provide programme deliverers with information enabling them to tailor implementation support to each individual school. We will start by addressing the concepts of readiness and capacity to improve before describing a number of factors that, based on the theoretical framework outlined, are central to creating capacity for learning and change. Finally, these factors will be discussed in light of previous Norwegian research within the field and will point to some of the changes needed in order to enable improved practice in Norwegian schools. In addition to building our article on theory and research on evidence-based, school-wide prevention programmes, we have chosen to mainly focus on organisational theory and research in general, and school improvement literature in particular. The reason is that research on prevention programmes has shown that there are very often problems with both implementation and long-term effects, often due to organisational factors like leadership, culture, climate etc. Since organisational factors like these are highly important for successful implementation and sustainability, we argue it is crucial to work on developing the school as an organisation when implementing school-wide programmes.

In preparation for this article we reviewed the literature on readiness and capacity to improve. We searched the databases “ERIC”, “PsycINFO” and “Academic Search Elite” using the keywords “capacity to change + school”, “capacity building in schools”, “organisational readiness” and “organisational change + school”. The search resulted in 2,312 articles from which those relevant to our research were picked out. In addition, reference lists from relevant articles were examined and references of interest were looked up and included. Not only did we include literature that focused on schools, but we also included research on other types of organisations, both private and community-based. The reason for this is that research on readiness and capacity to improve conducted outside of school settings may still provide important informa-
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tion relevant to the school as an organisation. However, we did not choose to include literature focusing on readiness and capacity in organisations where members of the organisation did not physically work together in the same place, as this differs greatly from how schools are structured. Nor did we include literature on individual readiness or capacity unrelated to organisational change as our main focus here is organisational readiness and capacity. The literature review we conducted is not strictly methodological in character. This means we chose not to “count” the number of relevant studies and their findings, but reviewed and analysed the contents of studies that met our inclusion criteria. Hence, we conducted a deeper analysis of studies we believe, based on the theoretical outline below, will help shed some important light on the topic of schools’ readiness and capacity to improve.

Capacity and readiness to improve

As for most concepts, there is no one single definition of the concepts of capacity and readiness to improve. Some definitions are somewhat overlapping (Armenakis, Harris, & Mossholder, 1993; Durlak & DuPre, 2008; Flaspohler, Duffy, Wandersman, Stillman, & Maras, 2008; Stoll, 1999) where readiness cannot exist without capacity. Others discuss readiness without a single reference to capacity (Edwards, Jumper-Thurman, Plesetd, Oetting, & Swanson, 2000; Engstrom, Jason, Townsend, Pokorny, & Curie, 2002; Oetting, Jumper-Thurman, Plesetd, & Edwards, 2001). Studies within the literature on readiness in organisations often refer to Armenakis and colleagues’ (Armenakis, et al., 1993) definition of readiness as being:

The cognitive precursor to the behaviours of either resistance to, or support for, a change effort (p. 681).

In line with this definition, a number of studies on organisational change have focused on characteristics associated with the individual (Armenakis & Bedeian, 1999; Armenakis, et al., 1993; Cunningham et al., 2002; Holt, Armenakis, Harris, & Feild, 2007). More recently, Holt and colleagues (Holt, Armenakis, Harris, et al., 2007) provided a more comprehensive definition of readiness:

Readiness for change is a comprehensive attitude that is influenced simultaneously by the content, the process, the context, and the individuals involved and collectively reflects the extent to which an individual or a collection of individuals is cognitively and emotionally inclined to accept, embrace and adopt a particular plan to purposefully alter the status quo (p. 326).

Holt and colleagues see readiness as an attitude and emphasise factors affecting this attitude. They focus less on the process within the organisation and more on collective efforts and the development of a learning community. However, when discussing schools’ ability to implement school-wide programmes it seems inevitable to omit these processes that might be seen as part of a school’s capacity to improve. According to Harris (Harris, 2001), capacity to improve is all about creating opportunities and
conditions that promote cooperation and mutual learning. More specifically, Stoll (Stoll, 1999) defines internal capacity as:

*The power to engage in and sustain continuous learning of teachers and the school itself for the purpose of enhancing student learning* (p. 506).

Stoll’s definition points to two important issues, the first being that capacity to change is not a static state where the organisation is “ready” per se, but is a dynamic process of continual growth and learning. Second, capacity to change involves both individual members of the organisation and the organisation as a whole.

Some schools do not have the capacity it takes to implement change initiatives successfully (Midthassel & Ertesvåg, 2008; Larsen 2005), let alone the readiness to recognise what needs to change and initiate the proper actions. These schools are probably the ones that need change the most. Ironically, it seems that it takes capacity to build capacity (Hatch 2001), making it hard for these struggling schools to improve on their own.

Given the previous discussion, we regard readiness to be the *attitude* needed to engage in change initiatives with motivation and spirit, while *capacity* represents power in the form of the skills, knowledge and behaviours required to implement a change innovation successfully. Hence, readiness and capacity are two closely linked concepts that are equally important when it comes to implementing change initiatives. Factors related to capacity on the individual, organisational and broader community level seem to influence individuals’ readiness to change (Flaspohler, et al., 2008).

**Theoretical framework**

We primarily draw on a theoretical framework based on the Burke-Litwin model of organisational change (Burke & Litwin, 1992; Burke, 2008), supported by theory and previous research from school improvement and prevention practice. A fusion of the Burke-Litwin model of organisational change and school-based theory and research constitutes a comprehensive theoretical framework that provides a base for our discussion of key factors affecting a school’s readiness and capacity to improve. Hence, the perspectives provide us with a thorough foundation from which we are able to pinpoint the most important factors from the sea of factors the literature claims may affect a school’s capacity to improve.

**Organisational change**

The Burke-Litwin model of organisational change (Burke & Litwin, 1992; Burke, 2008) was developed as a tool to examine organisational change and performance, and integrates a range of factors that provide guidance for understanding how organisations work. Figure 1 depicts an adaptation of the Burke-Litwin model of organisational change as it applies to school-wide programmes. The model predicts individual and organisational performance, indicating causal effects of change between 12 key areas
of organisational design. In doing so, it identifies transformational and transactional dynamics inherent in successful change efforts. Use of the model may help us better understand the interrelationship between key factors involved in performance and change, providing us with a clearer picture of the random and often unpredictable change processes that occur in schools. However, in order for systemic change to be successful, it will have to impact all of the 12 key factors, starting with the transformational factors.

**FIGURE 1.**

![Diagram of organisational change model](image)

**Figure 1.** A model to guide the assessment of readiness and capacity to implement evidence-based prevention programmes in schools, adapted from the Burke-Litwin model of organisational change (Burke & Litwin, 1992).
Although the model does not show arrows between all 12 factors, ideally there should be, as changes in one part of the organisation may affect any of the other parts. However, the arrows that point downwards weigh more than those that point upwards. Hence, transformational factors have a deeper impact when changed, as changes here will influence the transactional factors. Transformational factors deal with areas that require new staff behaviours as a consequence of external and internal environmental pressure. Such factors include: leadership, culture, mission and strategy. Transactional factors deal with psychological and organisational variables that predict and control the motivational and performance consequences of a work group’s (e.g. school staff’s) climate. The model distinguishes between the set of variables that influence and are influenced by the organisational climate (everyday transactional level) and those of the organisational culture (fundamental, transformational level). This distinction seems important to capture when a school is in need of change since the nature of the change initiative may indicate on which of these two levels the main focus should be.

The model’s main strength is the overview it provides by integrating a number of major change factors highly relevant to schools. Unfortunately, the strength may also be seen as a weakness in that it is a little complex; however, it is still an oversimplification of the reality. In addition, being an input-throughput-output model grounded in open systems theory (Burke & Litwin, 1992), it may put too little emphasis on the fact that many organisational changes, for example in schools, are initiated by leadership or internal factors rather than by the external environment. However, in her model of factors affecting a school’s internal capacity to improve, Stoll (1999) also highlights the importance of external factors not only in initiating change, but in affecting the outcome of change. She highlights the individual teacher, the social and structural learning context of the school, and last but not least external factors as the most important factors influencing improvement. Stoll compares schools to living organisms, where activities in each of these three areas influence the others and form different patterns of interactions (Stoll, 1999). Yet Stoll does not distinguish between transformational and transactional factors like Burke and Litwin do. Thus, similarly to the Burke-Litwin model she emphasises that key factors within the organisation interact with each other, and that changes in any of them may eventually impact the others. This is useful for understanding not only how schools perform, but also how they can be changed. However, understanding how changes in schools occur is not enough as knowledge of the factors affecting the implementation of change is imperative.

Greenberg and colleagues (Greenberg, Domitrovich, Graczyk, & Zins, 2005) offer a perspective that encompasses a number of interrelated factors that may prove to interfere with the effective implementation of school-wide programmes. Their perspective distinguishes between “planned implementation support” and “actual implementation support”. Greenberg et al. (2005) argue that even the most effective programme will produce poor results if the implementation system does not function adequately. The major contribution of Greenberg and colleagues’ perspective is the
emphasize on factors affecting the gap between planned implementation and actual implementation. We will take a closer look at those factors that can be assessed before any change-specific programme is being adopted and implemented as our main interest is to identify a school’s capacity to improve. In accordance with the Burke-Litwin model, these include factors at the external, school and individual levels, all of which are contextual factors outside the programme theory that may affect a future implementation process (Greenberg, et al., 2005). Factors on all of these three levels may have a great impact on the implementational quality of the change initiative. Regardless of the kind of programme or change intervention being implemented, Greenberg and colleagues (2005) argue that beliefs and behaviours that support change at the teacher, school leader, school district and broader community levels are of the utmost importance for successful outcomes. This argument is supported by the emergent approach to organisational change that emphasises readiness and a thorough understanding of the complex relationships among multiple variables such as structure, strategy, systems, people and culture, and how these may promote or inhibit change (Todnem, 2005).

The literature we reviewed reveals a number of different studies investigating factors that may influence an organisation’s capacity and readiness to improve. Several authors seem to point to the same factors, but categorise them differently or use different terms. Based on the theoretical perspectives presented above, an attempt is made to present a generic overview and take a closer look at what is claimed to be some of the most influential factors for implementation success. We argue these will all be important factors to include in a survey-based model for assessing a school’s capacity and readiness to improve. The theoretical perspectives presented earlier indicate that factors exist at the external, school and individual levels. The literature on implementation supports those perspectives as it also suggests that factors at these levels may affect the implementation of innovations (Durlak & DuPre, 2008).

**External level:** Factors at the external level may be described as conditions outside of the organisation that influence its performance in one way or another (Burke & Litwin, 1992) and may therefore affect the implementational quality of a school-wide programme. A number of government, district and community factors external to the school, such as changes to the national curriculum or even a school’s location, may potentially influence the quality of implementation within the school (Domitrovich et al., 2008; Greenberg, et al., 2005). Studies show that effective external support is needed in order to secure positive development and build internal support within the school (Harris, 2001; Stoll, 1999).

**School level.** Schools may have greater chances of successfully implementing school-wide programmes if they are thoroughly supported by external stakeholders. However, it is crucial that the schools themselves are positive about and ready for
the change initiative. A number of factors within the school, such as leadership and culture, may therefore greatly impact how ready the school is to engage in a certain whole school programme and, furthermore, what capacity it has to implement the programme successfully.

**Individual level.** Stoll (1999) claims that the single most important person when it comes to school improvement is the individual teacher since it is the teacher’s capacity to continuously learn that directly influences what he or she chooses to teach the students. In this regard, it will be important to unveil the factors that influence the individual teacher’s ability to engage in and sustain continuous learning. In order to reveal how and when change is likely to happen in practice, we need to understand the motivation, skills, knowledge and behaviours needed for change to occur (Flaspohler, et al., 2008). In order to create change, a message consisting of both the need to change and the ability to change has to be present (Armenakis, et al., 1993). Readiness research suggests that a perceived need for change, belief in the ability to successfully accomplish change and the feeling of being included in the change process are factors that all help create readiness to change in an individual (Cunningham, et al., 2002).

**Factors affecting capacity and readiness to improve**

**Transformational Factors**

Transformational factors include the external environment which is seen as an external level factor, as well as mission and strategy, leadership, and culture, all of which are school-level factors.

**External Environment.** Although school-wide programmes are usually carried out at the school and classroom level, implementation success may also be affected by members of the broader community such as district administrators or parents who have a say in school-related decisions (Greenberg et al., 2005). If influential stakeholders see a need for the school-wide programme and believe that creating change is a school-community goal, it may influence the motivation and amount of financial and human resources that eventually go into implementation of the programme (Greenberg et al., 2005). After reviewing 81 studies on factors affecting the implementation process, Durlak & DuPre (2008) identified politics, the research system, funding and policy as the most important community factors related to successful implementation. Research also shows that cooperation between universities, community agencies and schools, with a focus on assessing local needs, monitoring implementation and evaluating outcomes, may promote successful implementation of prevention programmes (Spoth, Guyl, Lillehoj, Redmond & Greenberg, 2007). Domitrovich et al. (2008) underscore that the implementation of innovations in schools does not occur in a vacuum but is a dynamic process influenced by school, district, state and federal policies and practices. The capacity to recognise external
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demands about change as opportunities for internal development is one of the many factors that may contribute to creating resourceful schools and successful school development programmes (Clarke, West, & Ainscow, 2005). We therefore argue that external support is an important motivational factor, although organisations must want to improve themselves in order for changes in capacity to occur (Nu’Man, King, Bhalakia, & Criss, 2007). Therefore, a number of school-level factors should be taken into consideration, such as mission and strategy, as they too may prove to have a great impact on a school’s capacity to implement school-wide programmes.

**Mission and Strategy.** As mentioned, it is crucial that the school itself is motivated and ready to engage in a new change initiative. A successful prevention intervention starts with the school creating an appropriate strategy to identify needs and provide a plan on how to effectively utilise available resources (Greenberg, et al., 2005). Having a written mission statement and a clear strategy as to how the organisation plans to reach its goals over an extended period of time are both important factors affecting organisational effectiveness (Burke & Litwin, 1992). It is important to realise that all schools are different and that there is no one improvement strategy to successfully guide schools through the process of change (Stoll, 1999). Yet what is essential for all schools are proper leadership practices, which we will address next, as they are needed to create and uphold an effective mission and strategy.

**Leadership.** Administrative support is important as the nature of the support may influence how successful a change initiative is (Burke, 2008; Greenberg, et al., 2005). In fact, a number of studies have found leadership to be a key factor influencing a school’s capacity to improve (Adelman & Taylor, 2000; Elliott & Mihalic, 2004; Fullan, 2007; Kam, Greenberg, & Walls, 2003; Midthassel & Ertesvåg, 2008; Mortimore, 1998; Rohrbach, Graham, & Hansen, 1993; Sobeck, Abbey, & Agius, 2006; Varlaam, Nuttall, & Walker, 1992). However, it seems that the types of leadership which are practiced greatly influences how ready the school is and how successful the implementation of a school-wide programme turns out to be. Burke and Litwin (1992) distinguish between transformational and transactional leadership. Transformational leadership is about the leader role, one who brings about changes within the deeper structures of their organisation and transforms it as a result of their leadership. Transactional leadership (management practices) is more about the manager role, one who is more concerned about keeping the status-quo, producing more “on the surface” changes that are less revolutionary and more evolutionary (Burke, 2008). Fullan (1992) argues that successful head teachers are those who are able to balance the two roles, emphasising the need to address both individual and organisational factors in order to succeed with implementation.

The head teacher providing opportunities for leadership roles among school staff and involving them in decision-making may bring about increased empowerment
which again may help build greater optimism, commitment and motivation to change among staff (Greenberg, et al., 2005; Stoll, 1999). In addition, the effects of change initiatives appear to be greater when individual teachers or teams are given the opportunity and responsibility to lead their colleagues through the change process (Stoll & Fink, 1996). A “top-down” communication style between the head teacher and teachers on the other hand seem to have the opposite effect as it may lead to increased resistance and reduced efforts to implement a school-wide programme (Greenberg, et al., 2005). In order to create successful and sustainable changes, the head teacher as a key resource must work to create a culture and climate in which the teachers, students, parents and community feel ownership and support for the change. Based on the discussion here, we argue that leadership seems to be one of the most forceful factors when it comes to influencing a school’s capacity to implement school-wide programmes because of the great impact it has on all of the other factors presented in this article.

**Culture.** Culture is often seen as the values and beliefs that prevail within the organisation (Burke & Litwin, 1992) and may be described as the identities and interpretations, motives and values shared by members of a society, based on their common experiences (House et al., 1999). Every school has its own reality and way of doing things, and the unconscious beliefs and perceptions of teachers are often coloured by this reality (Stoll & Fink, 1996). Hence, the school culture may influence the readiness to change and is therefore an important factor to address when attempting to build capacity and readiness to implement school-wide programmes (Fullan, 1993). A school’s history with more or less successful implementations of innovations may affect the personnel’s perceptions and behaviours towards a new change initiative (Greenberg, et al., 2005). As a result of previous experiences the school may develop a culture that is resistant to change, impeding any new change initiatives. In order to overcome this institutionalised resistance, the personnel’s negative perceptions and dynamics related to change need to be addressed, and new attitudes, skills and motivation have to be created (Adelman & Taylor, 2002).

**Transactional Factors**

Transactional factors include management practices, structures, resources and climate, all of which are school-level factors. Among the transactional factors we also find individual-level factors in the form of skills and knowledge, beliefs and values, and motivation.

**Management Practices.** While transformational leadership is concerned with creating changes within the deeper structures of the school, transactional leadership/management practices are more about keeping the status-quo, producing more “on the surface” changes that are less revolutionary and more evolutionary (Burke,
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Further, this type of leadership involves creating productive working conditions for school staff by strengthening the school’s infrastructure and monitoring school activity (Leithwood, Harris & Hopkins, 2008). Management practices may involve tasks like developing written plans regarding the practical implementation of developmental school activities and ensuring that necessary resources are available in order to practically carry out the work tasks to satisfaction. The most successful head teachers seem to be those who are able to balance the application of both transformational and transactional leadership, emphasising the need to address both individual and organisational factors in order to succeed with implementation (Fullan, 1992; Midthassel & Ertesvåg, 2008). Hence, head teachers who employ a combination of management practices that include the allocation of time and formalisation into policy, and leadership strategies that focus on communicating a vision and building a collaborative culture, seem to produce the most successful changes (Larsen & Samdal, 2007).

Structures. Integration of the school-wide programme into existing school structures, making sure that the initiative is reflected in the school’s mission and values, may consequently result in more successful implementations (Greenberg, et al., 2005). Structures refer to how the organisational functions are arranged (e.g. levels of responsibility, lines of communication and collaboration) that lead to implementation of the organisation’s goals, mission and strategy (Burke, 2008). Eby and colleagues (2000) argue that the degree to which organisational policies and practices are supportive of change may be important for understanding how an employee perceives the organisation’s readiness for change (Armenakis, et al., 1993). This may include flexible policies and procedures, logistics and system support etc (e.g. quality of equipment and financial resources). In addition, the level of trust in management may foster perceptions that the organisation can withstand rapid organisational changes.

Less powerful than social conditions, but still an influential factor impacting internal capacity, is the school’s physical structure (Stoll, 1999). How school buildings are designed, the size of classes and the school itself, and how the school-day is structured are some factors that may support or potentially restrain a school’s capacity (Stoll, 1999). Although these factors may not be the most important to assess, they can still provide valuable information about a school’s premises for building a collaborative climate and thereby the capacity to implement a school-wide programme.

Climate. A school’s climate may be defined as individuals’ perceptions of the management practices at their workplace and the effectiveness of the daily collaboration of the workgroup (Burke & Litwin, 1992). A school that provides a climate that supports change through positive attitudes and motivated colleagues seems to have teachers who are more likely to engage in change (Midthassel, 2002). Dysfunctional relationships between the teachers of a school may negatively impact the capacity
for improvement (Greenberg, et al., 2005; Stoll, 1999), hence schools will need to devote ample time and efforts to build strategies to promote trust, openness, communication and a positive environment among teachers as well as students, parents and the community (Stoll, 1999). The dynamics of these positive relationships may be very powerful, resulting in increased internal capacity and a more productive school (Stoll, 1999), which again may lead to more successful implementation of school-wide programmes. The classroom climate should also be taken into consideration when assessing a school’s capacity to change as a poor classroom climate with high levels of teacher-student and peer conflicts may negatively impact the implementational quality (Dunn & Harris, 1998; Greenberg, et al., 2005).

We would like to stress that a focus on improving the climate is especially important in schools with limited internal capacity since a climate that supports change may increase the individual teacher’s readiness and effort to improve the status quo (Stoll & Fink, 1996). Developing a positive climate through the use of resources to promote trust, openness and cooperation among school staff, students, parents and the community may result in more positive, sustainable changes and in the end more successful implementation of school-wide programmes (Stoll, 1999).

**Resources.** In order to successfully implement school-wide programmes, schools that already struggle with scarce resources will need to strategically redirect their existing resources to accommodate new requirements such as creating a plan for implementing the programme, developing new routines and practices, provide teacher training etc (Fernandez & Rainey, 2006). A capacity-building period that allows adequate time to plan and prepare strategies for introducing the programme, as well as allocate sufficient resources, may be needed in order to create readiness among staff and ensure a more successful implementation (Elias, Zins, Gracyzk, & Weissberg, 2003; Elliott & Mihalic, 2004; Greenberg, et al., 2005; Stoll, 1999).

Definite and practical elements of support such as the availability of qualified staff, funding, space, equipment, time and other essential programme resources are all of the utmost importance in order to build capacity at the school level (Adelman & Taylor, 2002; Domitrovich, et al., 2008; Gingiss, Roberts-Gray, & & Boerm, 2006; Greenberg, et al., 2005). Fernandez and Rainey (Fernandez & Rainey, 2006) point out that neglecting to provide the resources needed in order to implement planned change initiatives may result in poor implementation, and even cause a rise in levels of interpersonal stress and failure to effectively maintain core organisational functions. Moreover, a lack of resources may directly affect how school staff reacts to and engage in the implementation of a school-wide programme. Hence, a school’s resources are important to recognise as they may greatly impact the individual-level factors that we will discuss next.

**Skills & Knowledge.** There has to be a certain degree of congruence between the requirements of the school-wide programme being implemented and the skills, abili-
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ties and knowledge of the employee set to carry it out. The individual teacher’s skills, knowledge and previous experiences with change interventions are all factors that influence and become influenced by a school’s capacity to change (Newmann, King, & Youngs, 2000). Further, teachers who are successful in teaching academic skills will most likely implement new school interventions effectively (Greenberg, et al., 2005). A number of studies (Henderson, McAdam, & Leonard, 2006; Holt, Armenakis, Feild, & Harris, 2007; Kallestad & Olweus, 2003; Rohrbach, et al., 1993) provide additional evidence that, for change to happen, members of the organisation need to trust in their existing abilities and believe they have the skills and resources required to implement the school-wide programme successfully; hence, a state of readiness needs to be created.

**Beliefs and Values.** The introduction to something new might contrast or go against teachers’ practices and beliefs (Fullan, 1992). Moreover, individuals often avoid tasks they perceive as too difficult to handle and will instead engage in those they feel confident enough to manage. These common human reactions may all have to do with the teacher’s self-efficacy. Self-efficacy may be described as a person’s beliefs in their abilities to execute certain tasks required to reach a desired end-result (Bandura, 1997). Based on literature as well as interviews and surveys among managers from both the public and private sector, Holt and colleagues (2007) concluded that self-efficacy is one of the most influential factors related to readiness.

According to Holt and colleagues (Holt, Armenakis, Feild, et al., 2007), beliefs of being able to implement change, of the proposed change being appropriate for the organisation, of leaders supporting the change initiative and of the initiative being beneficial to the organisation all seem to influence individual readiness for change. Employees who feel in control and regard themselves as adapting easily to changes often seem to have positive attitudes to changes in general (Eby, Adams, Russell, & Gaby, 2000). However, teachers must also see the value of, and the need to implement ,the school-wide programme and have the background knowledge and skills necessary to do so (Burke, 2008; Greenberg, et al., 2005; Stoll, 1999). Based on the previous discussion we may argue that a teacher’s values and beliefs may greatly influence the next factor, namely his or her motivation to engage in implementation of a specific school-wide programme.

**Motivation.** Capacity-building may for some schools involve a firm focus on developing motivation among the teachers by raising their confidence levels so they are willing and able to become involved in the change process, and providing them with the tools to become experts in the new teaching strategy (Stoll, 1999). Hence, skills and knowledge – and beliefs and values both seem to have a significant influence on motivation (Burke, 2008).

Motivation may be described as an internal force that initiates and steers behaviour (Huber, 2006) and can be seen as a precursor for learning (Biggs & Moore, 1993).
Low and negative motivation is related to ineffectiveness and resistance to change (Taylor, Nelson, & Adelman, 1999). There are several types of motivation. Intrinsic motivation is a force within the individual that influences and guides their behaviour (Huber, 2006) and thereby affects how productive the person is. Extrinsic motivation is the motivation that is influenced by factors external to the individual (Mrayyan et al., 2007), such as the school culture, climate, leadership practices etc. Hence, schools should strive to build a climate that stimulates intrinsic and extrinsic motivation as they both affect the individual’s behaviours of either resistance to or readiness for the implementation of a school-wide programme. However, without the confidence and belief that one can make a significant difference and contribute to successful implementation, motivation on its own may prove insufficient for creating readiness (Stoll, 1999).

On a final note, we would like to draw attention to a study by Courtney and colleagues (Courtney, George, Rowan-Szal, & Simpson, 2007) revealing that those organisations which scored lowest in ORC (organisational readiness for change) surveys on climate, staff attributes and organisational resources proved to be the ones that were most motivated when confronted with the results and most engaged in a following effort to promote change. These findings provide evidence that we may be able to help those schools that struggle the most by involving them, providing a strategic picture of their current capacity, and giving them tailored support and guidance in the process of building their capacity and creating readiness to engage in the implementation of a school-wide programme.

**Discussion**

Schools take on a school-wide programme for different reasons. Some schools will only need a tool to strengthen and improve their routines, support the development of a shared vision among staff, or improve their collective skills for preventing and reducing problem behaviour. Other schools have experienced serious problems related to problem behaviour, weak leadership and/or lack of a collective culture (Midthassel & Ertesvåg, 2008). Therefore, there may be different areas they need to address and also, based on previous experience in implementing change efforts, schools will have different levels of capacity and readiness to improve (Midthassel & Ertesvåg, 2008). In the following discussion we aim to shed light on central factors affecting the implementation of school-wide programmes in light of the Burke-Litwin model of organisational change. In particular, we address the complexity and dynamics of factors found at the external, school and individual levels in relation to the Burke-Litwin model.

A key element in understanding change according to the Burke-Litwin model (Figure 1) is understanding the top half, transformational factors, compared with the bottom half, transactional factors. According to Burke (2008), changes in the transformational factors –external environment, mission and strategy, leadership, and culture – are caused by direct interaction with external environmental forces and will
as a consequence require significantly new behaviour from organisational members. Transactional factors, on the other hand, concern more of the day-to-day operations of the organisation and for any changes here we would use terms such as continuous improvement, evolutionary and selective, rather than sweeping and revolutionary.

**Transformational factors**

Leadership, mission and strategy, and culture are the transformational factors that most immediately and directly respond to external environmental dynamics. School reforms, governmental initiatives and school district initiatives may be examples of external factors affecting a school’s implementation of a school-wide programme. For example, the National Manifesto against bullying launched by the Norwegian government in 2002 was a direct reason for many Norwegian schools taking on an anti-bullying programme during the Manifesto period (Roland, Bru, Midthassel & Vaaland, 2010). In line with the Burke-Litwin model, the previous, albeit limited research on the implementation of school-wide programmes in Norway (e.g. Ertesvåg & Roland, resubmitted; Larsen & Samdal, 2008; Midthassel & Ertesvåg, 2008) points to leadership as an important capacity for schools implementing school-wide programmes. This also seems to be the case for formalisation into policy, which might be related to mission and strategy (Larsen & Samdal, 2008) and collective efforts (Ertesvåg et al., in press, Midthassel & Ertesvåg, 2008). Although the list is not exhaustive, it is clear that none of the publications reviewed for this article have investigated factors affecting the implementation of the programmes at both the external, school and individual levels, at least not in depth. Nor has any study addressed all of these factors at once. In all fairness, this was not the aim of these studies, although, in light of the theoretical framework and factors affecting readiness and capacity to improve discussed here, these studies are in danger of presenting a fragmented perspective. As Larsen (2005) found, it is not the mere presence of one or a few of these factors that is important for successful implementation. It is the way in which these factors interplay and are mediated through the head teacher’s employment of leadership and management strategies that provides a deep understanding of how to succeed in sustainable implementation. This is in line with the complexity addressed by Burke and Litwin (Burke, 2008; Burke & Litwin, 1992). Readiness and capacity are not only about teachers’ ability to learn and teach, individually and collectively, but highly complex and interrelated concepts. Hence, factors at the individual, organisational and broader levels must be considered.

Leithwood and Jantzi (2006) addressed transformational leadership in a study of the effect of a National Numeracy and Literacy Reform in England. They argued that transformational leadership is related to three areas: 1) setting directions; comprising clarifying reasons for implementing the strategy, assisting staff in setting short-term goals in teaching and learning, and demonstrating high expectations for work with pupils; 2) developing people; involving giving individual support to staff members...
when implementing the strategy, encouraging staff members to consider new ideas for their teaching, and modelling a high level of professional practice related to the strategy; and 3) redesigning the organisation; addressing the encouragement of collaborative work among staff, creating conditions within the school to allow for wide participation in decisions about the strategy, and developing good relationships with parents as part of the school’s efforts to respond productively to the strategy. Although related to a specific intervention, the three main areas of transformational leadership addressed by Leithwood and Jantzi seem to correspond well with the transformational factors in the Burke-Litwin model. Further, considering that the factors that separately have been found to be important factors in research on implementation of school-wide programmes correspond well with the Burke-Litwin model and the three areas addressed by Leithwood and Jantzi, there is reason to assume that these may be important areas to address when examining a school’s readiness and capacity to implement school-wide programmes.

**Transactional factors**

The bottom half of the Burke-Litwin model comprises transactional factors. These categories – structure, management practices, resources, work unit climate, motivation, individual beliefs and values, and skills and knowledge – represent organisational dimensions and activities that are considered more day-to-day operations than the transformational factors (Burke, 2008). Although research on implementation of school-based programmes in Norway addressing transactional factors is scarce, some studies have been conducted. However, this has not been the main focus of this type of research. For example, Kallestad and Olweus (2003) addressed skills and knowledge as well as trust in these abilities as necessary for changes to occur. Implicitly, the requirement for new skills and knowledge as necessary for change to happen was addressed by Ertesvåg et al. in press. In addition, Larsen and Samdal (2007) emphasised that the head teacher’s management practices, for example through the allocation of time and formalisation into policy, and their interplay with leadership performances focusing on communication and building a collaborative culture, seemed to produce the most successful changes. The results of Larsen and Samdal’s study give support to the dynamics and interplay between the transformational and transactional factors found in the Burke-Litwin model. However, the relevance of that model, especially the relevance of transactional factors and the interplay between factors in the upper and bottom halves of the model related to research on school-wide programmes, needs to be investigated further. Despite the scarce amount of research on these factors and based on the above outlines of school- and individual-level factors, it is reasonable to assume that the model may be relevant to research on schools’ readiness and capacity to implement school-based programmes. It should be noted that changing transactional factors (structure, systems and climate) will more likely result in continuous improvement: incremental and evolutionary organisational change. While changing
transformational factors (external environment, mission/strategy, leadership and culture), the organisational change is more likely to be discontinuous (episodic and revolutionary) and affect the deeper structures of the system.

**Concluding thoughts**

Let us end our discussion with a few words of caution, a note on the limitations of our review. Our work is not in the form of a strict, quantitative count and analysis. One weakness then is that it lacks accepted standards and metrics to cull high quality pieces of research from the full array of studies, and thus will not address all possible factors affecting schools’ readiness and capacity to improve. Yet its strength is that it provides an overview of the factors relevant to readiness and capacity to improve for schools about to engage in change activities, as well as providing a thorough theoretical reference.

This study mainly aimed to provide a model or framework to provide a way of thinking about the implementation of school-wide programmes, and to elaborate on the possibilities of identifying important areas influencing schools’ readiness and capacity to improve. Burke (2008) provided evidence to support the model’s validity to organisation research in general. Based on the above discussion, there is reason believe that such evidence can also be found in relation to schools as organisations and to the implementation of school-wide programmes. However, this will need to be tested and, in so doing, scales to measure the different factors will need to be developed. In this regard, a word of caution is appropriate. As Burke (2008) emphasises, an organisational model is only as good as the components selected for it and the relationships of these components with each another. As outlined above, although quite complex the model is an oversimplification of the reality. Nevertheless, there is still reason to assume that the model may be used as a meaningful framework for understanding and investigating schools’ readiness and capacity to implement school-wide programmes.

On a final note, we feel the need to express some thoughts on what we believe to be a necessary topic to address in this context: The school system is different from country to country. Although some of the programmes discussed in this article have been developed in Norway, a number of school-based programmes and research on such programmes have originated in the United States. The school system differs substantially between the two countries, e.g. in its structure. Further, there are clear cultural differences between the countries. Some caution is thus needed when applying findings from other countries to a national school setting. This may also lead to the fact that capacity-building in Norwegian schools will need a different approach than for schools in other countries. This said, in general and as outlined above, the international body of research within the field corresponds to findings from Norwegian studies on major factors constituting capacity and readiness for improvement. However, although the theory and research in the field applies across contexts, how
we best act on them may vary from country to country. Therefore, the characteristics of a school context should be carefully considered when developing or adapting a programme for a new country. Not only will we have to see each individual school in light of its history and context, but we also need to realise that the wealth of empirical data that exists on factors that influence a school’s capacity and readiness may come from research conducted in a number of different countries with an equal number of different school systems. We therefore argue that more research must be conducted in Norwegian school settings in order to expand our understanding of how our schools function and how we can help them improve. This may also help us better understand how existing international research applies to our schools. We thus believe that the next step in our research will be to test the model presented in this article in a Norwegian school setting.

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