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# Transformative assessment in physical education

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## Introduction

In the last couple of decades an ‘Assessment for Learning (AfL) movement’ has gained ground in the school world of advanced liberal democracies, which can be seen as a reaction to a too strong focus on accountability and summative assessment (Hay, 2006). According to Black and Wiliam (1998), the big idea of AfL is to adapt the teaching and learning to the needs of the students. This can be achieved by means of five key strategies: (1) clarifying and sharing learning intentions with the students, (2) engineering effective classroom discussions, tasks and activities that elicit evidence of learning, (3) providing feedback that moves the learner forward, (4) activating students as learning resources for one another and (5) activating students as owners of their own learning.

In recent years physical education (PE) has also encompassed AfL in its teaching practices and research (see for example Hay, 2006; Hay and Penney, 2013; López-Pastor et al., 2013; MacPhail and Halbert, 2010; Ní Chróinín and Cosgrave, 2013; Tolgfors and Öhman, 2016). Hay and Penney (2013: 109) advocate that ‘authenticity, relevance and meaning for students’ should be considered in the assessment practice. Engaging the students through self- and peer assessment might enhance their ownership of their own learning and responsibility for assessment. Hay and Penney (2013: 109) also regard ‘negotiation and collaboration as pedagogical characteristics of assessment’. Under such circumstances, AfL has the potential to promote learning and at the same time reduce social injustice, depending on the ‘capacities of teachers and students to engage with and utilise assessment practices and outcomes in a way that optimises learning possibilities’ (Hay and Penney, 2013: 81). Other researchers, such as Gurvitch and Lund (2011), highlight the need for teachers to create a systematic assessment culture in PE that promotes student learning, by establishing a clear link between their lesson objective(s) and formative assessment tasks.

On the one hand, a systematic assessment culture could lead to improved alignment between curriculum, pedagogy and assessment (Gurvitch and Lund, 2011; Hay and Penney, 2013; Penney et al., 2009; Redelius and Hay, 2012). On the other hand, Charteris (2016) for example, is concerned that today’s neoliberal policy objectives could promote an audit culture that is accompanied by instrumental and reductive interpretations of AfL, and that formative aspirations may be overpowered by accountability motives as a result (see also Torrance, 2011). This risk requires *critical engagement* with the assessment practice; something that is requested by Hay and Penney (2013) and

Leirhaug and MacPhail (2015). Consequently, research from a somewhat new perspective is required in the field of assessment in school PE.

The purpose of this article is to illustrate what characterises *transformative assessment* in upper secondary school PE (students aged 16-18). Inspired by Torrance (2017: 94), the overarching research question is:

What might assessment involve if it focuses on the development and identification of collective understanding that has been collaboratively produced through educational experiences?

This hypothetical question implies that the research interest goes beyond an assessment culture in which individual knowledge and ability is the core focus. According to Torrance (2017), the tendency towards *responsibilisation* and *subjectification* should involve *collaboration* between the participants (student, peers and teacher) in the assessment practice. But how might these three aspects of transformative assessment be addressed in the subject of PE?

## Assessment in the framework of transformative pedagogy

According to Tinning (2017), there is no common understanding of transformative pedagogy. It can be regarded as a discourse community and embrace different critical approaches, such as ‘liberatory pedagogy’, ‘critical pedagogy’, ‘critical inquiry’ and ‘critical reflection’. Previous research includes both advocacy *for* and reports *on* critical projects, their implementation and consequences. In PE, ‘the concern has been more with the freedom of an individual to participate in the movement culture, become self-reliant or independent rather than with the broader sense of emancipation underpinning critical pedagogy’ (Tinning, 2017: 283). Regarding the future directions for transformative pedagogies, Oliver and Kirk (2017: 314) advocate initiatives ‘which challenge body culture in PE, similarly require the construction of new and creative alternatives to traditional practices and to imagine new possibilities for the substance and conduct of the subject in schools’. Relatively new pedagogic inventions should also be challenged. For instance, Casey et al. (2018) problematise model-based practices in the subject of PE and argue that simply copying and pasting a model and following someone else’s prescription to the letter is not a good strategy. Instead, it is better to think about the model as a verb, as in ‘modelling’, which implies that PE teachers are expected to adjust it to the specific needs and circumstances of their own students. In my view, this transfer from noun to verb can also be applied to AfL.

Black and Wiliam (2018) recently pointed to the role of *assessment as part of pedagogy*, in that it is strongly linked to teaching and learning. This corresponds to Hay and Penney’s (2013) conceptualisation of assessment as a social, cultural and pedagogical process. They suggest that ‘students need to see that physical education can make a ‘real’ difference in and to their lives, [...] now and in the future’ (p. 110). This means that ‘assessment for learning must pursue lifewide and

lifelong links with a socio-critical orientation' (Hay and Penney, 2013: 110). This view of AfL in PE highlights the transformative potential of assessment.

Thus, this article focuses on transformative assessment as a critical pedagogical approach that has the potential to challenge traditional PE practice and the predominant accountability culture of today's education (see also Torrance, 2011, 2017).

### *What is transformative assessment – in theory?*

The five key strategies of AfL are 'tight but loose' (Thompson and Wiliam, 2007: 2) in that they must all be included in the concept - even though teachers are free to make use of them in a way that suits them best. Nevertheless, Jönsson (2016) has warned against a tendency towards pseudo-formative assessment that is characterised by a series of summative assessments, instead of a creative interpretation and application of the five key strategies.

Previously, I have identified five different versions of AfL in PE, all of which are named after their most prominent features: i) empowerment, ii) physical activation, iii) grade generation, iv) constructive alignment and v) negotiation (Tolgfors, 2018). Depending on what is performed in the interactive cultural pattern of the assessment practice, AfL can change shape from one version to the other. For instance, some PE teachers plan their teaching using the stipulated assessment criteria as points of departure, instead of the learning intentions. This reversed alignment means that AfL is transformed into a way of promoting 'criteria compliance' (cf. Torrance, 2007: 282), rather than learning in a more open-ended sense. Although this is not always problematic, when teachers require substantial written evidence of learning there is a risk of a dualistic view of theory and practice. A contrasting version of AfL promotes different routes to goal attainment depending on the students' needs and aspirations. When the assessment process involves negotiation between teacher and students, it is beginning to approach transformative assessment – in theory (Tolgfors, 2018).

Torrance (2007, 2011, 2012) points to the risk of *con*formative assessment when all students are given the same incontestable feedback by means of rubrics and other standardised assessment techniques. When formative assessment is convergent, rather than divergent, teachers focus on whether or not students will achieve specific curriculum derived objectives, instead of what they learn in a more open-ended and exploratory teaching practice:

But transparency of objectives coupled with extensive use of coaching and practice to help learners meet them is in danger of removing the challenge of learning and reducing the quality and validity of outcomes achieved. This might be characterized as a move from assessment of learning, through the currently popular idea of assessment for learning, to assessment as learning, where assessment procedures and practices come completely to dominate the learning experience, and 'criteria compliance' comes to replace 'learning'. (Torrance, 2007: 282)

Instead of an instrumental use of the assessment criteria as prescriptions of learning outcomes, Torrance highlights contingency. This means that knowledge requirements should be problematised through meta-cognition. Consequently a relevant perspective on transformative assessment is that:

We need to understand our task as one of collaborating with students to bring about learning, to be alert to the generation of unpredictable outcomes and indeed to regard the production of unpredictable and unintended outcomes as an indication of success, not lack of compliance with the programme. We need to make the rules of the game as apparent as possible, but we also need to try to communicate that we would be happy to see the rules of the game change, if someone comes up with better ones. (Torrance, 2012: 339)

In today's audit culture, where the individual is under constant surveillance, Torrance (2017) criticises the tendency towards *responsibilisation* and *subjectification*. Many occupations in advanced liberal societies require 21<sup>st</sup> century skills, such as creativity, *collaboration* and teamwork. The words in italics will be further developed below.

To sum up, Torrance's work has inspired the following definition: Transformative assessment implies an assessment culture that is divergent, rather than convergent. Through critical engagement and student influence, the assessment practice can be adapted to the different needs and circumstances of students in heterogeneous groups. Learning is seen as something more elusive than individual criteria compliance and could involve a collective understanding that is collaboratively produced through educational experiences.

## Methodology

This is not an empirical study in the correct sense of the word, with an in-depth analysis of data generating new knowledge about a specific problem. Nor is it a theoretical paper, exclusively based on philosophical arguments in the debate on assessment in PE. As stated earlier, the intention of this article is to *illustrate* what characterises transformative assessment and to show how it can be understood and applied in the PE practice. Quennerstedt, Öhman and Armour (2014: 885) have previously *illustrated* 'the ways in which a learning theory framework can be used to guide research questions, offer important insights into the learning process and make a contribution to the wider literature on learning theory'. In a similar way this study takes its departure in a theory of transformative assessment, which is then empirically illustrated with examples from authentic assessment practices in the subject of PE. It is important to note that the empirical examples used in the article are extracted from the re-analysis of empirically rich data that focused on AfL in the subject of PE, which has been used in previous research. Transformative assessment is not a common concept among practitioners in Sweden. Thus, the few empirical examples presented in this paper merely serve as *illustrations of what characterises transformative assessment in PE*, where the claims made are mainly theoretically motivated.

Building on Torrance (2012, 2017) the transformative assessment process includes the following phases: (1) The teacher is held responsible for the alignment between curriculum, pedagogy and assessment. This '*responsibilisation*' can be expressed in different ways. (2) If/when the students are activated as owners of their own learning, responsibility is transferred to the individual, which denotes '*subjectification*'. (3) If/when the students are activated as learning resources for one another, the responsibility is shared by the collective, which denotes '*collaboration*'. These different aspects of transformative assessment are displayed in [Figure 1](#) below.

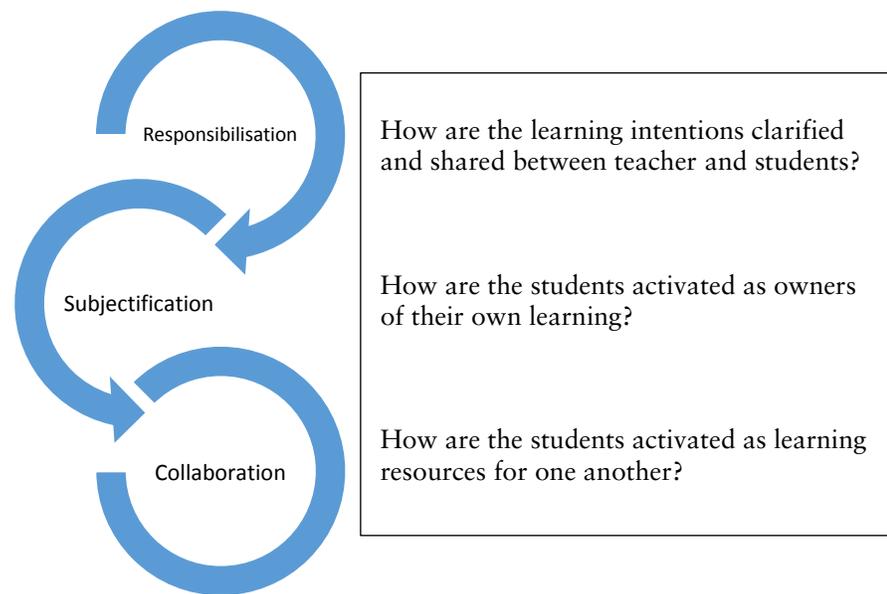


Figure 1: The process of transformative assessment, which is also used as an analytical tool.

### *Method*

A combination of group interviews with teachers, lesson observations and individual interviews with students and teachers was used to gather the empirical material. The group interviews were conducted within a teacher learning community (TLC) in a series of three meetings, each lasting for 90 minutes (see Wiliam and Leahy, 2015). The group consisted of five female and three male PE teachers with experience of teaching both boys and girls at an upper secondary school in Sweden. The reflections within the TLC generated data on teachers' perspectives of AfL in the subject of PE, within the implementation phase of AfL at the school.

Two years later the study was developed by fieldwork at two different upper secondary schools in the same city. The reason for focusing on upper secondary PE practices was the likelihood of greater elements of student influence, autonomy and divergent opinions about assessment than in a compulsory school setting. Two male PE teachers and some of their students were purposefully

selected by ‘intensity sampling’, which implies ‘information-rich cases that manifest the phenomenon intensely, but not extremely, for example, good students/poor students; above average/below average’ (Patton, 2002: 243). One of the teachers was a new informant, whereas the other had participated in the previous TLC. One of the schools mainly offered vocational training courses, and the other was a private school with programmes for students aiming at future university studies. Thirteen PE lessons, both outdoors and in the gym, were observed. Four classes of students aged 17-18 with different ambitions in life and in the subject of PE were included in the study. During the observations, some students were selected ‘ad hoc’ for interviews based on their different performances in the teaching practice. 17 of these students were asked about their experiences of AfL in school PE. Their statements were audio-recorded and transcribed. At the end of the field study, semi-structured interviews with the two PE teachers were also conducted. Here, the interview guide was based on the five key strategies of AfL and the questions focused on how the teachers applied them. The interviews were also audio-recorded and transcribed verbatim. Altogether, the empirical material facilitated the emergence of different opinions about AfL in the subject of PE from both students’ and teachers’ perspectives – some of which corresponded to the definition of *transformative assessment*.

All the participants gave their informed consent to taking part in the study in advance and were repeatedly asked if they were still willing to answer questions during the fieldwork. They were also informed of the possibility to withdraw from the research project at any time. Another ethical precaution was to ensure confidentiality as far as this was possible. Altogether, the empirical material consisted of 30 pages of handwritten field notes and 140 pages of computer typed transcriptions.

### *Analysis*

The first step of the analysis was a basic process of exclusion and inclusion of the different examples of AfL in the empirical material. This screening was based on the definition of transformative assessment in the theoretical section of this article.

The procedure meant that many examples of AfL focusing on feedback to individual students were excluded. Whenever the teachers’ assessment techniques met student resistance, or caused critical engagement, the examples were included. So too were obvious examples of student influence and collaboration in the formative assessment practice.

The second step of the analysis was conducted by posing the analysis questions (see Figure 1) to the empirical material included in the study: (1) How are the learning intentions clarified and shared between teacher and students? (2) How are the students activated as owners of their own learning? (3) How are the students activated as learning resources for one another? Hence, the three aspects of transformative assessment – *responsibilisation*, *subjectification* and *collaboration* – were elicited.

Finally, three illustrations of transformative assessment, based on the field notes and transcriptions, were formulated in a descriptive way and verified by a selection of significant quotations from the

participants. These are coded as M1 and M2 for 'male teachers', F1, F2 and so on for 'female teachers', B1, B2 and so on for 'boys' and G1, G2 and so on for 'girls'.

## Empirical illustrations

Three illustrations of transformative assessment in the subject of PE are presented in relation to learning tasks such as: (1) the training log, (2) the group choreography and (3) the case of exercise physiology. The three aspects of *responsibilisation*, *subjectification* and *collaboration* serve as headings in order to guide the reader through the stages of the transformative process.

### Illustration one: The training log

#### *Responsibilisation*

One of the learning intentions in upper secondary PE in Sweden is that the students are expected to choose, carry out and evaluate a variety of physical activities and reflect on different health issues in relation to them (The Swedish National Agency for Education, 2011). In order to achieve this purpose, the PE teachers in the study use a 'training log' as a learning task. The students are also expected to set their own goals and work to achieve them, which means that the training log may promote learning of relevance for the individual student. One of the students verifies this way of dealing with the specific learning intention as follows:

The teacher gave us responsibility by asking us to write a training log and how we would plan the training. He asked us what we would have to do to reach a certain goal. (B1)

A similar task is keeping a 'health diary', which also gives the students an opportunity to decide what to aim for regarding their own health in its broadest sense. A teacher explains that the students are free to choose different health goals, from training objectives to changes in lifestyle.

Most of the PE teachers regard a healthy lifestyle in a life-long perspective as the major purpose of PE. Consequently, the teachers want to educate self-regulating young people who are prepared to *take responsibility* for different health related choices in the future.

#### *Subjectification*

The training log and health diary position the student as an active subject, who is expected to choose a way of exploring different movement cultures or lifestyles and to reflect on the experiences gained in connection with training and other health aspects. The learning tasks are promoted in coaching sessions, facilitating appropriate feedback. The individual training logs or health diaries are used to monitor the students' self-assessments. This means that a teacher's feedback is adapted to an individual student's interests and aspirations. As one boy explains:

What is assessed is the ability to plan, your own responsibility, discipline, and how you've written your training log. That you can show that you know what to do and that you are okay at sport. (B2)

The teachers also focus on how the students act on the feedback provided in the coaching sessions. The fact that the students set their own goals does not mean that they have to stick to them for the rest of the project period:

It has later emerged that when they've looked at their training logs that even their diet has changed. Setting training goals has meant being outside more and an improvement in physical fitness, which has also resulted in a change in eating habits and a reduced tobacco or alcohol consumption. (F1)

Nevertheless, the individual routes to goal attainment are all supposed to end up in some kind of evaluation. The feedback does not necessarily have to be provided by the PE teacher, but can just as well come from a group of classmates.

### *Collaboration*

Some teachers organise meetings with smaller groups of students in order to discuss their goals in life and in the subject of PE. A teacher highlights the role of peers by giving them credit for the progress that has been made in the PE practice:

If they can see that they have come closer to the goal, they might realise that this can be a good way to train. And who has come to that conclusion? I haven't told them to do this or that, but they've talked to each other and come up with their own suggestions. (M1)

The teacher's comment shows that he is satisfied with the students' collaboration when helping each other to move forward in the learning process. PowerPoints enhanced by photographs or film clips captured by a 'go pro-camera' make the students' different experiences visible to their peers, who can then be activated as learning resources through peer assessment. A teacher describes a situation in which a male student shows a film clip of extraordinary quality in class of him riding a mountain bike in a challenging environment. The experience is enhanced by his choice of music, which makes the presentation even more animated:

A boy had been mountain-biking in Spain at half-term. What a fantastic film! So well edited and with music added. And the tricks he did – they were awesome! Most of the students have incredible phones nowadays. They can take photos, create videos and even edit them directly in the phone. To be honest, I think it's much more interesting to see this guy in action than simply reading about it in an essay. (F1)

The teacher explains that presentations like this give her a good overall picture of students' physical abilities and what the students do in their leisure time. Some experiences are not easy to acquire in the normal learning environment in school PE. Thanks to technical devices like mobile phones, iPads and cameras, external experiences can be included in the assessment practice, thereby facilitating authentic assessment. The film clips can also be used for summative purposes in the assessment of the

students' qualities in different movements, which is a knowledge requirement in the Swedish syllabus (The Swedish National Agency for Education, 2011).

Sometimes the presentations are accompanied by *group reflections*, which is a common example of collaboration in the studied PE practices. The reflections focus on the different physical, mental and social health benefits of the activities. According to the PE teacher, the peer discussions also serve as inspiration to try other ways of exploring different movement cultures in the future. When students know what they are capable of, and have received feedback from others, they become more self-confident.

## Illustration two: The group choreography

### *Responsibilisation*

Part of the core content of Swedish school PE is 'movement to music and dance' (The Swedish National Agency for Education, 2011). The theme focused in this illustration was processed for a period of five weeks. The teacher's 'collaboration with students to bring about learning' (Torrance, 2012: 339) was already evident at the start of the transformative process, which indicated a shared responsibility for the progress on the dance floor. The first part of the progression was characterised by teacher-led rhythms, in terms of basic step combinations to music and a choreography in the form of line dance. The students were also introduced to a couple of traditional dances and acted as natural learning resources for one another when switching dancing partners. In upper secondary school some students are already used to the traditional dances, whereas others need plenty of peer feedback. According to the PE teacher:

They get new input every time. When they move to another classmate they may get different advice. If it didn't go well with the last one, maybe it will be better with the next. They help each other forward.  
(M4)

Although the teacher was still responsible for the instructions, the dance theme involved a collective problem solving approach amongst the students from the very beginning. This collaboration was also evident when the teacher asked the students for help in the countdown to different step combinations.

### *Subjectification*

In the next part of the progression a more student-centred learning task was introduced. The theme of movement to music and dance was supposed to end up in a group choreography at the end of the period. The teacher divided the students into smaller groups in order to activate them as owners of their own learning. The transition to the *subjectification* phase of the transformative assessment process was characterised by the fact that the students were held responsible for their knowledge

production. This involved them choosing the music and agreeing on times to practice in their spare time. As mentioned in the responsabilisation phase above, this working area required collaboration from the start. Unlike the majority of today's school assignments, the learning task could not be done individually. Thus, the students gathered in their groups and started to share ideas with each other without supervision from the teacher.

### *Collaboration*

A *creative collaboration* was a prerequisite for the group choreography. The challenge was to choose a suitable theme, contribute to making moves to the theme and adapt the movements to the beat and character of the music. All the students in the group had to participate in the creative process and in the rehearsals for the examination, which involved a dance performance on stage in front of the teacher and the rest of the class. This is where the current example differs from most of the others in the empirical material, in that the teacher had booked a theatre with a light and sound system that would make the final examination even more grandiose. Although some of the students may have been uncomfortable with the high expectations, they had the opportunity to support each other all the way, even on stage, which proved fruitful:

It was a success! They all passed! (M4)

Regarding the students' individual performances, the teacher's assessment focused on their ability to adapt their movements to the beat and character of the music (The Swedish National Agency for Education, 2011). However, the quality of their performances was dependent on creative collaboration, so that the respective themes were apparent to the audience:

The whole process required collaboration. The final result was what was essentially assessed, but of course I took notes during the process. (M4)

This assessment task shows that teamwork can make a difference in the transformative assessment practice of PE, even though the summative assessment of each student's abilities is individual.

## Illustration three: The case of exercise physiology

### *Responsibilisation*

Written assignments are often used to assess students' knowledge in the subject of PE. One of the intended learning outcomes is that students should be able to evaluate different training methods in relation to relevant theories, such as exercise physiology (The Swedish National Agency for Education, 2011). Consequently, a couple of teachers in the study describe how they have designed written assignments on physiology, including rubrics that clarified the assessment criteria. The assignments are distributed to the students via a learning platform on the web. The students are

expected to work on them at home and then submit them to the learning platform. The formative assessment is usually characterised by written feedback, pinpointing what the students need to develop in order to move to the next step in the progression. A culture of accountability is maintained through this *con*formative assessment (cf. Torrance, 2012) when responsibility is transferred from the teacher via the learning platform to the individual student.

### *Subjectification*

Many students are quite used to this procedure from other school subjects, which may facilitate the process of subjectification. However, in spite of it being the individual's responsibility, some students fail to submit written assignments. This resistance entails a critical engagement with the assessment practice:

If a student doesn't submit a written assignment, is it the student's attitude or the assignment itself that is the problem? (F2)

The group reflections in the TLC indicate that the PE teachers regard the predominant assessment culture as quite stressful for many students. Their interpretation of the three basic AfL questions – *Where is the learner going? Where is the learner right now? How does the learner get there?* (Black and Wiliam, 1998) – implies there is always a gap between where the students are and where they should be. The mutual responsibility of achieving the knowledge requirements is sometimes frustrating:

The question is how far one should push it [...] Should they never feel satisfied? (F2)

This particular quote refers to the teacher's concerns about today's high-performing girls, who may be subjected to excess pressure. For example, if they have to submit a certain assignment several times in their quest for top grades. The teachers also discussed their experiences of the difference between teaching in vocational and pre-university programmes and the different prerequisites for individual students in today's heterogeneous classes. Some students were reported to excel in writing, while others were reported to be better equipped to show what they know orally or physically. What, then, could be done to increase the possibilities of all students succeeding?

### *Collaboration*

On one occasion, when the majority of the class failed to submit an assignment on physiology, one of the PE teachers decided to adapt the teaching and learning situation to the needs of the students. Instead of an individual written assignment, he organised an oral group task based on a couple of realistic cases. The class was divided into groups of four students and given a paper with instructions. They were asked to discuss what kind of advice they would give to people of different ages and with

different training goals, and to describe what the physiological benefits of their individual training programmes and lifestyle changes would be:

The students were asked to think like personal trainers to the people described in the cases and then present their recommendations to the rest of the class. After each group presentation, the other students were able to ask questions, comment on their training advice or present alternative suggestions. (M3)

The teacher acted as a moderator, who ensured that all the groups had an opportunity to give advice. He also made sure that as many students as possible in each group contributed to the presentation. However, when it comes to summative assessment an oral group exercise like this may not be as valid and trustworthy as an individual written assignment. In terms of transformative assessment, on the other hand, it is an example of how the students can be activated as learning resources for one another. The teacher thought it was more likely that the students would learn more from this collaborative task than from a poorly completed written assignment submitted by a few students. In his opinion, the group discussions also provided more authentic evidence of learning, in that the students were able to argue how their physiological knowledge could be used for different target groups.

## Discussion

Three illustrations of how transformative assessment can be addressed in PE have been presented.

The first illustration indicates that the Swedish national knowledge requirements are quite flexible and adaptable to the individual student. The fact that the students are expected to set their own goals for the training log and work towards achieving them means that there are different routes to goal attainment. Accordingly, teachers' *feedback needs to be divergent*, which Torrance (2007) considers to be an important aspect of transformative assessment.

The second illustration shows how the students are activated in creative collaboration when working on a choreography. This gives prerequisites for a production of knowledge, rather than a reproduction of movements to music. In this context the 21<sup>st</sup> century skills of *creativity, collaboration and teamwork* (Torrance, 2017) are addressed in the transformative assessment practice, whereas they are often seen as irrelevant in the predominant accountability culture. The students help each other forward in the rehearsals for the final examination and the teamwork continues on stage, where the group performance is subject to assessment.

The third illustration shows that a PE teacher is '*happy to see the rules of the game change, if someone comes up with better ones*' (Torrance, 2012: 339). The students' silent protests and the teachers' *critical engagement with assessment* require a different assessment technique than the one that was first intended. An individual written assignment is replaced by 'cases' that involve oral problem-solving in groups. This adjustment gives the students who had failed to submit their individual assignments an opportunity to learn something in the collaborative process.

Consequently, the study illustrates *'what assessment might involve if it focuses on the development and identification of collective understanding, collaboratively produced through educational experiences'* (cf. Torrance, 2017: 94), which is also the overarching research question.

According to Hay (2006), the AfL movement was originally a reaction to the accountability culture in education. Several scholars have scrutinised the different formative and summative functions and purposes of assessment. A common point of view is that an improved alignment between curriculum, pedagogy and assessment is needed in the subject of PE (see for instance Hay and Penney, 2013; Penney et al., 2009; Redelius and Hay, 2012). Leirhaug and MacPhail (2015) have shown that PE teachers regard formative assessment as the key to student learning. Unfortunately, the researchers have also identified a lack of critical engagement with assessment on the part of practitioners. This insight supports the idea of transformative assessment, which involves meta-cognition of the contingency of the knowledge requirements and assessment routines (Torrance, 2012).

Even though all assessments can have both formative and summative functions, Torrance (2011) claims that the former is often overpowered by the latter, due to accountability motives. This is evident when *conformative* assessment (Torrance, 2012) focuses on the students' abilities in comparison with predetermined knowledge requirements, instead of their progression in open-ended learning activities in different movement cultures. Drawing on Charteris (2016), such an instrumental and reductive interpretation of AfL must be challenged. As part of the discourse community of critical approaches in PE (Tinning, 2017), transformative assessment has the potential to challenge both traditional PE practice and the predominant accountability culture. This ambition would probably be supported by Oliver and Kirk (2017), who encourage such endeavours.

As stated in the methodology, the empirical material used in this article does not exclusively correspond to *transformative* assessment and the promotion of divergent learning. As a matter of fact, most of the material relates to the promotion of convergent learning through AfL in PE. Even though such examples of *conformative* assessment fall outside the scope of this article, they are appropriate in many situations when the intended learning outcomes are well motivated. There are certain knowledge requirements to meet in, through and about movement (cf. Arnold, 1979) which are widely accepted by the profession. Clear and concise assessment criteria may also facilitate a valid summative assessment. Thus, the notion of transformative assessment should not be interpreted as if 'anything goes' in the assessment practice. Considering Hay and Penney's (2013: 209-210) description of 'negotiation and collaboration as pedagogical characteristics of assessment' and their suggestion that 'assessment for learning must pursue lifewide and lifelong links with a socio-critical orientation', there is a need for more research in this relatively unexplored area of the assessment field. For instance, an intervention based on the implementation of transformative assessment in PE would generate more robust and genuine data compared to the AfL material used in this article.

Like many other European countries, Sweden is a multicultural society with heterogeneous school classes. Many refugees have recently arrived in the country, which means that this diversity will be

continuous. Today's students have various experiences of different movement cultures and, consequently, different prerequisites for participating in Swedish school PE. This motivates a teaching and learning practice that facilitates intercultural encounters between boys and girls with different expectations of what to learn in PE. A PE practice that is adapted to the current sociocultural context also requires an assessment practice characterised by *critical engagement*, *student influence* and *collaboration*. In my opinion, this would be a step towards the 'social justice' that is requested by Hay and Penney (2013) and Tinning (2017).

From a transformative perspective, the traditional quest for 'measurability', 'comparability' and 'validity' belongs to an accountability culture in which the summative function of assessment is top priority. However, 'equity' in assessment does not mean measuring all students with the same instrument, but rather adjusting the assessment techniques to suit their different circumstances and providing appropriate feedback. After all, a common denominator between AfL and transformative assessment is the big idea of promoting learning by adapting the teaching to the needs of the students (cf. Black and Wiliam, 1998).

The views presented in this article contribute to the knowledge of the field in the following ways. First, the empirical illustrations show that the 'whats', 'hows', 'whoms' and 'whys' in the assessment practice are often negotiable, which prevents a simplified understanding of the four aspects of assessment literacy: comprehension, application, interpretation and critical engagement (DinanThompson and Penney, 2015; Hay and Penney, 2013; Leirhaug, MacPhail and Annerstedt, 2016). Second, the notion of transformative assessment could hinder a reductive and instrumental use of AfL in PE (Charteris, 2016). An influential concept, such as AfL, risks being used as a 'model' when both practitioners and researchers try to copy its well-known techniques, even though the key strategies are 'tight but loose' (see Thompson and Wiliam, 2007: 2). To paraphrase Casey et al. (2018), we should not regard a model as a blueprint. Some 'modelling' is required in order to make adjustments to different educational contexts. The scholars' message is also that teachers should always consider the child's perspective in relation to any teaching model. This advice is relevant in relation to assessment models too.

As mentioned above, an aspect of assessment literacy is 'critical engagement', which in terms of transformative assessment may involve questions like: If a student does not conform to the prescribed knowledge requirements in a rubric – is it the child or the rubric that has the biggest limitations? If we rely on sociocultural learning theories, should we not consider students' collaboratively produced knowledge in the assessment? A team works best if its members contribute different skills and ideas, so why is it important to assess all students with the same measures? Do students have to provide written evidence of learning, or would a practical assignment followed by group reflection be more effective in the collaborative promotion of learning? Who benefits from or, on the contrary, is disadvantaged by different assessment techniques? Who are the winners and losers in my own assessment practice and what can be done for social justice?

The hope is that this article will encourage practitioners to pose similar questions in relation to their own practices, without simply copying the model of transformative assessment (Figure 1). The need for modelling is embedded in the concept.

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