

ARTICLE

# Enjoying flow in primary school music making: does family musical practice matter?

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## Abstract

Given the differences in continuing musical after primary school, this study works with the idea that the development of music-making habits requires flow, which, in turn, depends on family musical practice. Flow is the state of mind of immersion in an intrinsically rewarding activity, which represents an optimal challenge fostering persistence and skill growth. Based on 164 students (82 girls) from six schools in Catalonia, we compared flow in primary school musical practice between students with high and low levels of family musical practice, concluding that family context should be considered in adapting musical activities to students' previous experiences.

**Keywords:** Flow; music education; musical practice; family context; cultural capital

## Introduction

Musical practice has been part of every culture (Brown, Merker, & Wallin, 2000) and can thus be considered the quintessential human activity (Fautley, 2017). Although most school students participate in music making (Valenzuela & Codina, 2014; Valenzuela, Codina, & Pestana, 2018), few adults enjoy an active musical practice (European Music Council, 2011). Consequently, inclusion needs problematisation, as music education can contain exclusionary practices, especially for non-western non-instrumental musical expressions (Fautley & Daubney, 2018).

In this regard, family context may condition individuals' musical practices, given that an early start in learning music provides more time to incorporate cultural capital (knowledge and skills indispensable for cultural practice: Bourdieu, 1977, 1990). Early acquisition of cultural capital facilitates faster and easier access to more of the same type of knowledge and skills. As a result, people tend to reproduce patterns of cultural participation previously present in their families (cultural reproduction) – even though sometimes they incorporate new cultural practices (cultural mobility: Bourdieu & Passeron, 1990). Consequently, having close relatives who practise music increases the chances of early access to music making and may provide advantages in facing the demands of primary school music education.

Family context conditions the incorporation of beliefs, preferences, knowledge and even musical abilities (Ilari, Moura, & Bourscheidt, 2011), which promotes intrinsic motivation in learning music: the autonomous enjoyment or interest in the activity *per se* (Lamont, 2011). Intrinsic motivation is critical for learning music and is positively associated with family musical practice, interest in music and willingness to practice (Valenzuela & Codina, 2014). Families with greater musical practice usually provide their younger members with private training – compatible with the standards of dominant institutions in the field of music – in stages prior to regulated education (Burnard, 2012).

These provisions favour the development of a musical sense of self (Lamont, 2011) and a sense of agency in learning music (Wiggins, 2011), which may be advantageous for children when facing

the demands of school musical practice – given that they may consider success in music making likely and achievable, facilitating feelings of entitlement (Moore, 2012). By contrast, intrinsic motivation deficits are associated with anxiety – observed in many music students – which may lead to withdrawing from music studies (Osborne & Kenny, 2005; Wristen, 2013).

Given these antecedents, educational institutions have been criticised for establishing homogeneous teaching policies (Törnqvist, 2004; Johansen, 2009). Additionally, given that the subject area receives subpar validation within a greater education framework, in Spain (Rodríguez-Quiles, 2017) and other countries, gaps have been observed in music teacher training, and these are sometimes compensated for only by teachers' individual creativity and efforts (Rusinek, 2004).

Based on the aforementioned, it is essential to establish if the development of a musical sense of self and agency in learning music form the foundations for enjoyment and perseverance in musical practice. If so, family context could condition this enjoyment. In order to investigate this issue, the construct of flow is useful (Custodero, 2002, 2005), given that it is characterised by high levels of intrinsic motivation and absorption (Bakker, 2005), variables that can be theoretically related to the senses of self and agency in musical practice.

Flow is a psychological state of satisfaction, which results from success in an intrinsically motivating activity that represents a balanced level of demand with the individual's present skill level (Csikszentmihalyi, 1988). Activities that are too difficult generate frustration, those that are too easy lead to boredom; enjoyment and the desire to persevere are found in the relative balance between skills and demands. Moreover, flow triggers learning, given that one same task does not produce equally intense experiences twice, and task demands need to increase gradually to maintain optimal challenge, motivation and enjoyment. In this way, improvements in practice generate a virtuous cycle, leading to the consolidation of participation habits (Csikszentmihalyi, 1991).

The three definitory aspects of flow are intrinsic motivation (practising for the task's intrinsic value), absorption (being immersed and 'forgetting everything else') and enjoyment (enjoying a deep sense of reward) (Rhodes & Kates, 2015; Swann et al., 2018). These aspects reveal the relationships between a musical sense of self, comprising positive attitudes and dispositions towards music, and intrinsic motivation (Lamont, 2011), and between a sense of agency in learning music and absorption (Wiggins, 2011), which is closely related with flow in music making (Amado et al., 2013). Additionally, a robust sense of agency in learning music allows an independent assessment of one's own skills and the selection of tasks with optimal demand levels (Keller & Landhäußer, 2012) thus facilitating concentration, absorption and flow (Bakker, 2005).

In the hypothetical case that flow in primary school music-making activities was equivalent between students from families with, respectively, high and low levels of musical practice, the effectiveness of primary school music education could be considered independent of family factors and could contribute to universal access to musical practice. By contrast, if flow were significantly different depending on family musical background (even in the case that all students had access to optimal music education conditions, teacher training, resources and infrastructure), it would be indispensable to consider family context in the pedagogical design.

Taking into account these antecedents, the following question was asked: is flow in primary school musical practice equivalent between students with and without relatives who practice music? In answering this question, socio-economic profile is considered as control variable given that cultural capital and socio-economics appear to be linked to the above-mentioned other variables (Bourdieu & Passeron, 1990; Fautley & Daubney, 2018).

## Method

### Participants

Participants were students from six primary schools which participated in a high-quality music education programme in Catalonia (Spain). The programme included complementary training for

teachers and pedagogical and logistical coordination, so that, during one year in music class, children learned music through the songs of a 45-min long musical piece composed *ad hoc* for children's choir and professional orchestra. The experience gave each student the opportunity to feel like a professional musician, appearing in front of an audience of relatives in a professional auditorium, singing the songs learned in school in a choir accompanied by symphonic orchestra musicians. The programme sought to be inclusive; thus, it was based on singing (a bodily and intuitive activity), rather than on instrumental practice. Furthermore, it considered that singing in a choir, rather than individually, would trigger less performance anxiety. Catalonia has a longstanding vocal tradition, where choirs and vocal ensembles are present in many towns and cities. Thus, we considered this programme a best-case scenario and – if differences in enjoyment were found between children due to family contexts – these differences would have been expected to be greater in other less-optimal pedagogical settings.

Consequently, an intentional sampling method was aimed at ensuring participation of students experiencing flow. Six schools were selected, according to the programme director's indications regarding the best-performing teachers and those students (and relatives) with highest satisfaction with the programme. Participants completed anonymous questionnaires in their music class, as part of the final activity evaluation (coordinated between the programme and the schools' principals).

The ethical requirements of the Ethics Committee of the University of Barcelona (University of Barcelona's Bioethics Commission, CBUB – Institutional Review Board IRB00003099) were applied to the current study, which meant that additional approval for the research was not required because the data obtained did not involve animal or clinical experimentation. Additionally, this study complies with the recommendations of the General Council of Spanish Psychological Associations (Consejo General de Colegios de Psicólogos), the Spanish Organic Law on Data Protection (15/1999: Jefatura del Estado, 1999) and the Declaration of Helsinki (World Medical Association, 2013).

Of the six selected schools, from diverse districts in Barcelona, one had a low socio-economic profile, being located in a poor neighbourhood, and included students stemming from socio-economically disadvantaged families (one classroom,  $n = 21$ ); another school had a very high socio-economic profile, was located in the richest part of town, and included students from wealthy families (two classrooms,  $n = 46$ ) and the other four schools had a middle-class socio-economic profile (four classrooms,  $n = 93$ ).

Of all participants ( $N = 164$ ), 67.7% were 5th graders and 32.3% were 6th graders and 49.4% were boys and 50.6% were girls. Their ages ( $M = 11.37$ ;  $SD = 0.53$ ) ranged from 11 to 13 years: 11 (65.8%), 12 (31.7%), and 13 (2.50%).

## Measures

Given their practical usefulness for assessing optimal participation experiences within limited time frames, short scales have been created to evaluate flow reliably in several activities, including school musical practice (Jackson, Martin, & Eklund, 2008; Martin & Jackson, 2008). Similarly, in this investigation, flow was evaluated through *ad hoc* adaptations of the core flow and short flow scales (Martin & Jackson, 2008).

The *core flow* scale uses ten items to assess the core phenomenological experience of an optimal state of mind, including aspects like being 'in the zone', feeling like 'everything clicks', 'totally involved' and 'totally focused' (Martin & Jackson, 2008). The *short flow* scale uses nine items to evaluate the defining characteristics of flow experience (Martin & Jackson, 2008): balance, goals, feedback, concentration, control, automaticity, lack of self-consciousness, time distortion and intrinsic reward.

Following established criteria, both scales were translated and adapted to the context of primary school musical practice (Hambleton, 2001; Van de Vijver & Tanzer, 2004). Items' content

validity was evaluated by three experts working in music education: a teaching methodologist, a music school principal and a children's music teacher. Experts received definitions of *core flow* and *short flow* and evaluated whether each item adequately represented each construct or if they presented deficiencies impeding comprehension. Agreement was high regarding the correct comprehension and representation of each construct's content. Two pilot applications were carried out with small samples in order to ensure that items were understood.

Regarding the *core flow* scale, experts and pilot application signalled two items ('I'm in the zone' and 'I'm in the Groove') with translation and comprehension problems. Thus, the final adapted *core flow* scale included eight items. With regard to the *short flow* scale, according to expert advice, given that the notion of 'competence-situation balance' could limit children's comprehension, an additional item assessing skill-task balance was included ('I have enough skills to adequately perform the tasks'), adapted from French, Caplan, and Harrison (1982), as reported by Bakker (2008). All flow items were evaluated on a 6-point Likert scale, ranging from strongly agree to strongly disagree.

The adapted *core flow* scale (8 items) presented a high alpha ( $\alpha = .89$ ) and the adapted *short flow* scale (10 items) presented a satisfactory alpha ( $\alpha = .74$ ). These reliability results coincide with previous studies that found alphas between  $\alpha = .63$  and  $\alpha = .90$  (Bakker, 2008; Martin et al., 2006). Aspects of convergent validity were analysed through the correlation between *core* and *short flow*, which was robust ( $r = .67$ ;  $p < .001$ ), similar to previous studies ( $r = .72$ : Martin & Jackson, 2008).

*Family musical practice* – as expression of musical cultural capital – was evaluated with the item 'the person has relatives who practice music (play instruments, sing in a choir, or compose)'. Participants reported their similarity to this portrait, on a 6-point Likert scale, ranging from 'not at all similar to me' to 'very similar to me' (following previous research that has shown that intrinsic motivation for musical practice is positively associated with family musical practice and willingness to practice music: Valenzuela & Codina, 2014).

*School socio-economic profile* was assessed as control variable, taking into account the schools location (district). Four schools were middle-class socio-economic level; only two schools were, respectively, above (two classrooms) and below middle-class socio-economic level (one classroom).

### Data analyses

Results were analysed with SPSS 25. Using independent group comparisons, *core flow* and *short flow* measures were compared between children from high and low musical practice families. Reports of family musical practice were compared between participants from schools with low, middle and high socio-economic levels.

### Results

Most of participants experienced flow during school musical practice (Table 1), both in *core flow* ( $M = 4.65$ ,  $SD = 0.93$ ) and *short flow* ( $M = 4.66$ ,  $SD = 0.73$ ). The items with higher means (close to 5 points) were those including the aspects: 'totally involved', 'switched on' and 'totally focused' (*core flow* scale) and notions like 'strong sense of what I want to do', 'how well I'm doing', 'focused on the task', 'having enough skills' and 'experience is extremely rewarding' (*short flow* scale). Items with the lowest means included expressions such as 'I feel in control', 'nothing else matters' (*core flow*) and 'I do things spontaneously and automatically' (*short flow*).

Of all participants, 45.6% (hereinafter referred to as high musical practice families) reported perceiving themselves as similar to a 'person with relatives who practice music': the response alternative 'very similar to me' was chosen by 23.1% of students; 'similar to me' by 7.5%, and 'somewhat similar to me' by 15.0%. The remaining 54.4% of participants (hereinafter referred to as low musical practice families) answered that they did not perceive themselves as similar to this

**Table 1.** Core Flow and Short Flow: Means, Standard Deviations and Differences According to Family Musical Practice

	All (N = 164)		Low (n = 87)		High (n = 73)		t-test	
	M	SD	M	SD	M	SD	t	p
<i>Core flow</i>	4.65	0.93	4.44	0.91	4.90	0.90	-3.12	.002
I am 'totally involved'	4.98	1.09	4.78	1.13	5.20	1.02	-2.37	.019
It feels like 'everything clicks'	4.77	1.10	4.58	1.14	5.03	1.01	-2.54	.012
I am 'tuned in' to what I am doing	4.84	1.20	4.54	1.31	5.19	0.96	-3.52	.001
I feel 'in control'	4.37	1.52	4.20	1.53	4.55	1.51	-1.39	.167
I am 'switched on'	5.11	1.14	4.96	1.20	5.27	1.08	-1.67	.096
It feels like 'nothing else matters'	3.72	1.66	3.49	1.65	4.00	1.64	-1.90	.060
It feels like I am 'in the flow' of things	4.48	1.27	4.17	1.40	4.83	1.02	-3.35	.001
I am 'totally focused' on what I am doing	4.97	1.08	4.87	1.09	5.10	1.06	-1.33	.186
<i>Short flow</i>	4.66	0.73	4.50	0.66	4.89	0.73	-3.52	.001
I have sufficient skills to carry out my work tasks properly (balance)	4.95	1.22	4.77	1.24	5.18	1.13	-2.13	.034
I feel I am competent enough to meet the high demands of the situation (balance)	4.58	1.44	4.37	1.48	4.85	1.35	-2.10	.037
I have a strong sense of what I want to do (clear goals)	4.93	1.13	4.88	1.13	5.03	1.13	-0.81	.422
I have a good idea while I am performing about how well I am doing (immediate feedback)	4.99	0.87	4.91	0.80	5.10	0.95	-1.37	.172
I am completely focused on the task at hand (concentration)	4.90	1.16	4.76	1.27	5.08	1.01	-1.74	.085
I have a feeling of total control (perceived control)	4.37	1.41	4.23	1.40	4.49	1.43	-1.15	.254
I am not worried about what others may be thinking of me (lack of self-consciousness)	4.43	1.63	4.04	1.71	4.91	1.41	-3.49	.001
I do things spontaneously and automatically without having to think (fusion of awareness and action)	4.15	1.51	4.08	1.54	4.28	1.45	-0.82	.411
The way time passes seems to be different from normal (distortion of time perception)	4.38	1.60	4.18	1.61	4.68	1.54	-1.92	.057
The experience is extremely rewarding (intrinsic reward)	4.95	1.28	4.70	1.37	5.30	1.06	-3.11	.002

personal portrait: 'has nothing in common with me' yielded 39.4% of responses; 'not similar to me' was chosen by 8.1%; and 'not very similar to me' by 6.9%.

Comparisons made with Student's *t* test (Table 1) showed that the participants stemming from high musical practice families gave significantly higher responses than their peers from low musical practice families on the items that contained expressions such as 'totally involved', 'everything clicks', 'tuned in' and 'in the flow' (*core flow*) as well as 'enough skills', 'competent enough', 'not worried about what others might think of me' and 'experience is extremely rewarding' (*short flow*). As a result, the former scored higher on the measures of *core flow* ( $t_{(152)} = -3.118$ ;  $p = .002$ ) and *short flow* ( $t_{(156)} = -3.515$ ;  $p = .001$ ).

As means of control, analysis of variance (ANOVA) was used to assess differences in family musical practice according to school socio-economic level (data not tabulated). Children from schools with middle-class socio-economic profiles scored higher in family musical practice ( $M = 3.73$ ;  $SD = 2.02$ ) than children from schools above ( $M = 2.15$ ;  $SD = 1.86$ ) and below ( $M = 2.76$ ;  $SD = 1.70$ ) middle-class socio-economic profiles. However, post hoc comparisons

based on Bonferonni method showed that only the difference between middle-class and above middle-class socio-economic profiles reached significance levels as regards family musical practice ( $D = 1.58$ ;  $p < .001$ ). These results suggest that the association between socio-economics and family musical practice follows an inverse-U pattern, favouring families with children in middle-class schools.

## Discussion and conclusions

The introduction of music education in primary school in order to guarantee universal access to musical practice seemingly generates different continuity patterns: some individuals continue to be interested in musical practice and others do not. One cause for these differences is that, in order to continue musical practice, individuals need to experience flow in this activity (otherwise, boredom or frustration may take over and lead to abandonment). However, *flow* experience is conditioned by children's family musical practice. In this regard, our study found differences depending on whether students came from families with high or low musical practice: the former experienced higher levels of *core flow* and *short flow* during school musical activities. We should warn that these differences were found in a context of optimal and standardised music education conditions, that is, with structured activities, trained teachers, adequate infrastructures and proper resources, motivating activities and the opportunity to sing in a choir (a more accessible practice than playing an instrument). So, it would be expected that under conditions of weaker music education, these differences would be similar or even greater.

Most participants, regardless of their family context, coincided in agreeing with items containing the expressions 'strong sense of what I want to do', 'focused', 'switched on' and 'I have a good idea about how well I'm doing'. These findings show that the designed activities were successful in achieving participation with high motivation levels, clear goals, immediate feedback and concentration. In other words, these students' answers indicate that the programme managed to provide all participants (regardless of their families' high or low musical practice) with foundations for flow in school musical practice.

Additionally, students also generally coincided in manifesting low levels of agreement with items containing notions like 'I'm in control', 'nothing else matters', 'I act automatically' and 'time passes differently from normal'. This response tendency shows that activities were structured and that students were not in control and did not act automatically. Instead, they followed instructions from their teachers, which made absorption impossible, regardless of their family's musical practice. However, it would also be possible to argue that the cause for this could be the age of the participants, given that at young ages, musical practice is still quite driven by extrinsic motivations, such as approval from teachers and relatives (Lamont, 2011), which restricts the feelings of control, absorption and spontaneity.

In spite of these coincidences – probably based, on the one hand, on a successful pedagogical design and, on the other, on the natural restrictions of children's absorption experience – students from high musical practice families showed higher scores on *core flow* than their classmates from low musical practice families. These differences could be explained by the fact that early contact with music contributes to perceiving it as something natural and every day (Burnard, 2012), through the incorporation of positive attitudes and dispositions (Ilari et al., 2011), thus promoting intrinsic motivation (Lamont, 2011), flow and perseverance in musical practice.

Students from high musical practice families also reported (*short flow*) 'having sufficient skills' and 'feeling competent enough' to a greater degree. These findings converge with the perspective that the families' socio-cultural context and previous experience in formal and informal music education can significantly condition music learning and practices (Moore, 2012; Wiggins, 2011). Furthermore, beliefs about one's own ability and perceived competence (Deci, 1975; Losier & Vallerand, 1994; Schüler, Sheldon, & Fröhlich, 2010) have been shown to play important

roles in the processes that lead to the maintenance of intrinsic motivation over time. Children from socio-cultural contexts with higher musical practice can have more and earlier opportunities to acquire music skills (Ilari *et al.*, 2011) that facilitate their intrinsic motivation and enjoyment of musical practice in elementary school.

Lastly, during school musical practice, students from high musical practice families showed greater 'lack of concern about what others might think of them' and 'feeling of reward' (*short flow*), as well as being 'totally involved', and 'flowing with the activities' (*core flow*). So, the experience of the students from high musical practice families presented more typical signs of *flow* – such as absorption, fusion between awareness and action and autotelic enjoyment.

These results support the idea that musical cultural capital and the level of musical practice of each family condition the experience of the younger members when learning music. This idea coincides with the cultural reproduction process (Bourdieu, 1977; DiMaggio, 1982), where children from families with high levels of cultural capital in a certain field generally obtain greater benefits from their cultural practice in that field. Taking into consideration the participants in the current study, this argument is upheld, among other things, if we consider *flow* to be one of the benefits of participating in musical activities. An integration of the concepts presented reveals that a high level of family musical practice can promote the sense of one's musical self and the sense of one's agency in learning music; these two senses can operate as a basis for *flow* in primary school musical practice – which, in turn, promotes perseverance.

In conclusion, it can be observed in our study that family musical cultural capital conditions childhood music participation experiences. Thus, it is a priority for primary school music education to acknowledge that in one same classroom there are students with different levels of attitudes, motivation and even aptitudes towards learning music. Considering these differences should allow music teachers to offer tasks adapted to each child, without making a deterministic interpretation of the capacity to achieve *flow* in school musical practice.

Based on the results obtained in this study on children's music training, we point out some psycho-pedagogical guidelines in order to facilitate access to enjoyment of musical practice: some directed to the school and others to the teachers.

Regarding the school, efficiently promoting musical practice requires a detailed study of the effect of family context the students' music education experiences in primary school, in order to optimise the music education processes. For example, taking into account the relationship between beliefs and attitudes towards music present in the family and the development of intrinsic motivation in learning music (Lamont, 2011), a school music education programme designed to create atmospheres of significant learning (Díaz, Morales, & Díaz, 2014) can, among other actions, invite families of the youngest children to participate in fun musical activities in school. This type of pedagogically inclusive design would allow parents to offer their children the possibility of identifying with them in an active role of musical practitioners, creating a rich atmosphere of opportunities for the consolidation of children's music participation (Kröner & Dickhäuser, 2009).

Regarding music teachers, it is necessary that they provide each student with tasks of fitting demand levels, considering their skills, at each moment, thus, providing the balance needed for absorption. Given that balance is personally determined – depending on previous experience with musical practice – in order to stimulate flow in every student, teachers will need to get acquainted with the musical practice situation of each family. Therefore, through the promotion of a sustained and personalised balance between demands and skills, music teachers will avoid students' frustration and boredom, as well as potential anxiety and desertion. In this way, regardless of the family's previous musical practice, most of the students will be able to achieve flow in school musical practice, which will allow them to acquire knowledge and musical abilities, thus, enabling them to consolidate their music-making habits.

Beyond the obtained results regarding processes to consider in children's music education, this investigation makes contributions to the study of flow. On the one hand, the study provides very

useful instruments for studies on musical practice in Spanish-speaking contexts, the *core flow* and *short flow* scales (Martin & Jackson, 2008). These instruments have been successfully translated and adapted to the context of children's musical practice and, in turn, are adaptable to other geographical and artistic learning contexts where *flow* processes are consubstantial to the activity. On the other hand, family and school contexts, as primary socialising agents, predispose students to certain sensitivities and abilities, so that family and the teachers can proactively work towards the continuity of certain cultural capitals or the incorporation of new ones.

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