

Pilot The use of Wearable technology in Football in the UK

Introduction

The purpose of this study is to develop an in depth understanding of the use of wearable technology across the football landscape in the UK. This will help to further understand how various football and educational settings are using the technology for performance and education. For what, if any interaction there is, between the use for sport performance and education and vice versa. To describe and contrast how it is being used within different Further and Higher education settings, including college, university and football clubs. The modes of study example being BTEC, NCFE and modern apprenticeship. Will help underpin further research in developing a conceptual framework and model to optimise the use of wearable technology in football.

Are you aged 18 or over * *Required*

Yes

No

Consent

*please read and answer the following statement "I have read the information sheet provided and I am happy to participate. I understand that by completing and returning this questionnaire I am consenting to be part of this study and for my data to be used as described in the information sheet provided" please answer to confirm you have read the statement and agree to it. * Required*

Yes

No

About you and personal use of wearable technology

GENDER * *Required*

- Male
- Female
- Other
- Prefer not to say

What is your experience of wearable technology for personal use * *Required*

- never used
- new user less than 1 month
- up to 6 months
- up to 1 year
- 1-2 years
- more than 2 years
- used for a period then stopped

Have you used any wearable technology in the last 2 years * *Required*

- Yes
- No

Do you currently use any wearable technology * *Required*

- Yes
- No

What type of wearable technology do you mainly use for your own personal use *
Required

- Fitbit
- Apple watch
- Wrist type device not listed
- Heart rate strap type
- GPS vest type
- Ankle/boot strap type
- Other

If you selected Other, please specify:

What do you use your personal wearable technology for please tick all that apply *
Required

- monitor own exercise/training
- Count steps
- Monitor sleep
- Monitor heart rate
- Just for sport participating in
- Continuous monitoring during the day
- Continuous monitoring day and night
- Monitor all activity 24/7
- Other

If you selected Other, please specify:

How often do you use your own personal wearable technology * *Required*

- Every day
- 2-3 days per week
- 4-7 days per week
- 1-3 times per week
- Only in football calendar pre-in-post season
- Only term time
- All year round
- Other

If you selected Other, please specify:

Do you monitor your progress over time

- Yes
- No

How you monitor your progress

- Weekly historical view
- Monthly historical view
- Occassional summary of progress
- Other

If you selected Other, please specify:

This section is about your place of work

Which best describes the setting you work in * *Required*

- National squad
- Higher education, University
- Further education, College
- Other Further education provider
- Football Club academy
- Technology sector
- Professional Football club
- Football team not listed
- Semi professional football club
- Other not listed

If you selected Other, please specify:

What best describes your role in the setting identified in the previous answer (this can be full or part time paid or voluntary) * *Required*

- Lecturer HE
- Lecturer FE college
- Head of education Football club
- Lecturer at a football academy
- Lecturer FE provider/external agency
- Coach Professional team
- Coach semi pro team
- Coach amatuer team
- Age specific coach
- Performance staff

- Medical staff
- Other

If you selected Other, please specify:

please tick which setting you work in where wearable technology is being used *
Required

- Football club academy
- Further education College
- Higher education University
- Other further education provider
- Football team
- Football club
- Other

If you selected Other, please specify:

which department uses

Please don't select more than 1 answer(s) per row.

	not used	hardly used	frequently used	always used
football (senior staff)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Performance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
education	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

medical	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
coaching	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
analysis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
sport science other than performance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Which department uses

Please don't select more than 1 answer(s) per row.

	not used	hardly used	frequently used	always used
Performance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
football	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
IT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
sport	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Teaching	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Are there any other departments that you feel could use the technology and or the information it produces

What type of wearable technology device or system is used at your place of work

Heart rate strap type

GPS vest type

- Ankle/boot type
- Wrist type device
- Other

If you selected Other, please specify:

Is it for single or multiple use

- Single user
- Multiple user
- Both
- Team/squad
- Other

If you selected Other, please specify:

What is it primarily used for * *Required*

- Performance
- Education
- Both
- Unsure

please tick which of the following the technology is used for

Please don't select more than 1 answer(s) per row.

	not used	occasionally used	frequently used	always used
monitor tactical performance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
benchmark physical activity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
prescribe training load	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
as a coaching tool	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
to periodise training load	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

please tick what the technology is used for

Please don't select more than 1 answer(s) per row.

	not used	occasionally used	frequently used	used where relevant	always used
develop players/students understanding of physical outputs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
develop players/students understanding of physical requirements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
inform for coach/student understanding of data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
develop math including numeracy, areas, perimeters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
develop IT skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
other subjects	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

In terms of use for football performance please tick all that apply

- Team monitoring of training load
- Individual monitoring of training load
- Team monitoring of match load
- Individual monitoring of match load
- Monitoring of positional load
- To inform testing data
- Monitor external load
- Monitor internal load
- Both internal and external load
- Monitor technical load (ball contacts)
- Other

If you selected Other, please specify:

In terms of football education what is it used for

- Numeracy
- Literacy
- Information technology (IT)
- Tactics
- Coach education
- Student learning experience
- Other

If you selected Other, please specify:

About the use of wearable technology in your workplace

Who wears it

- Players
- Students
- Both
- Other

If you selected Other, please specify:

Who collects the data from the technology being used tick all that apply

- Lecturer
- Student
- Coach
- Student placement/intern
- Sport scientist
- Technician
- Medical staff
- Other

If you selected Other, please specify:

How is the data collected

- during activity Live
- after activity downloaded
- both

How is the data collected after activity tick all that apply

- Via a USB for single user
- Via USB for multiple users
- Via docking station single user
- Via docking station multiple users
- Wireless transfer single user
- Wireless transfer multiple users
- Other

If you selected Other, please specify:

How long does it usually take from collection of data to analysis

- Within 5 minutes
- Within 30 minutes
- Within 1 hour
- Same day
- Next day
- Not known
- Other

If you selected Other, please specify:

How long does it take from analysis of data to communication of the data to others

- within 15 minutes
- within 30 minutes
- within 1 hour
- within 2 hours
- same day
- following day
- more than 2 days less than 1 week
- more than 1 week
- Other

If you selected Other, please specify:

How is the data communicated/presented please tick all that apply

- paper form
- computer or large display screen
- mobile device
- tablet/ipad
- Other

If you selected Other, please specify:

Who is the data communicated to

- participants/players
- students
- coaches
- lecturers
- Head of education
- head of performance
- sport science staff
- medical staff
- Other

If you selected Other, please specify:

Why is data communicated to those from previous answer

- feedback on performance
- personal analysis
- performance analysis
- to monitor training load
- for educational purpose
- Other

If you selected Other, please specify:

Is the data displayed openly or private

- open
- private

Where is the data displayed

- inside changing room wall
- outside training room wall
- display screen open area
- on wall by canteen
- display/notice board
- Other

If you selected Other, please specify:

What metrics do you use

- internal (heart rate)
- external (GPS type)
- tactical (boot type)
- Other

For external tick all that apply

- total distance
- Max speed
- various speed zones
- impacts
- accelerations
- decelerations
- High metabolic load distance
- Training load
- heat map
- sprints distance
- number of sprints
- systems own metrics
- other

For internal tick all that apply

- % of max heart rate
- traffic lights zones
- Heart rate variability
- breathing rate
- Other

If you selected Other, please specify:

Why do you use the metrics chosen please tick all that apply

- inform on volume of work done
- inform on intensity of work done
- helps to predict injury
- monitor total work done
- helps to track performance
- used as key performance indicators
- used to inform on acute chronic ratio
- coach dictates what to use
- person in charge of technology selects
- for use in research study
- company supplied installed metrics
- what has always been used at this place
- different departments use different metrics
- Other

If you selected Other, please specify:

Are there any challenges that you experience in the use of please tick what you feel is most important to you a maximum of 3 options

- Please select no more than 3 answer(s).
- reliability/accuracy
 - understanding of analysis
 - relevance of the data/reports produced
 - validity of data
 - difficult to use
 - access to the data

- analysis and software
- multiple reports for different stakeholders
- unable to export to own system/platform
- Other

If you selected Other, please specify:

In an ideal world how would you like to see wearable technology used to improve football education specifically communication and feedback.

Your answer should be no more than 75 characters long.

Culture and Implications surrounding the use

In your opinion do you feel that wearable technology is useful in terms of (tick all that apply) * *Required*

Please don't select more than 1 answer(s) per row.

Please select at least 1 answer(s).

	Yes	No
Football coaching (general)	<input type="checkbox"/>	<input type="checkbox"/>
Football physical (performance)	<input type="checkbox"/>	<input type="checkbox"/>
Football Tactical (insight)	<input type="checkbox"/>	<input type="checkbox"/>
Football Tactical (coaching)	<input type="checkbox"/>	<input type="checkbox"/>
Football technical (coaching)	<input type="checkbox"/>	<input type="checkbox"/>
Football technical (performance)	<input type="checkbox"/>	<input type="checkbox"/>
Education (football coaching)	<input type="checkbox"/>	<input type="checkbox"/>
Education (life skills)	<input type="checkbox"/>	<input type="checkbox"/>
Education (numeracy)	<input type="checkbox"/>	<input type="checkbox"/>
Education (Literacy)	<input type="checkbox"/>	<input type="checkbox"/>
Education (IT)	<input type="checkbox"/>	<input type="checkbox"/>

In your opinion do you feel that the use of wearable technology will change in football * *Required*

- Yes
- No
- stay the same
- increase in use
- Decrease in use

Based on your previous response what impact do you feel it will have * *Required*

- Positive
- Negative
- Stay the same (no different)

Do you feel the use of wearable technology in your workplace is beneficial

- Yes
- No

would you like to see more or less use of wearable technology being used in your workplace * *Required*

- More
- Less
- remain the same

What do you see as the biggest barriers around wearable technology use in your workplace

What concerns if any do you have surrounding its use in football

In an ideal world how would you like to see the use of wearable technology develop

Thank you

Thank you for your time, you are not over the age of 18 or agreed to consent, therefore not eligible to participate in this survey.

Final page

Thank you for taking part in this research and completing the questionnaire
